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AMERICAN
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Vol. X. JANUARY-MARCH, 1895. No. 1.

A DISCOVERY OF HORIZONTAL CURVES IN THE ROMAN TEMPLE CALLED "MAISON CARRÉE" AT NIMES.

(PLATES I, II.)

The purpose of this paper is to call attention to an important observation made in February, 1891, on the fine and well-preserved Roman temple at Nimes called the "Maison Carrée"—viz., that it is constructed with the optical refinement of the curved horizontal lines hitherto considered peculiar to the Parthenon and other Greek temples of the fifth or sixth centuries B. C. This is the first observation of the horizontal curves in a building wholly Roman and proves their continuance to a date three or four centuries later than was previously known.[1] This observation also antagonizes the current presumption of archæologists that the imperial period was indifferent to this refinement or incapable of achieving it.

Herewith is the attestation of the present official architect of the city of Nimes, together with that of his predecessor in office, both of whom have been very helpful to me in the matter of measurements and friendly sympathy. These gentlemen had not previously noticed the curves; for the reason, as I believe, that they

[1] The small remaining portion of the architrave of the temple of Olympian Zeus at Athens shows the curve. This architrave is supposed by Penrose to date from Antiochus IV. (174 B. C.) The curved foundations date from Peisistratos. Opinions as to the date of the *Maison Carrée* vary between the first and second centuries A. D.

produce a perspective illusion as to the size of the building and hence present themselves to the eye as a natural effect, according to the principles of curvilinear perspective. Measurements such as are usually taken in surveying a building do not indicate the existence of a curve in the horizontals, because the width or height is estimated in such surveys by a single measurement or at best by two; taken at the extremities. At all events it is in point to observe that although measurements of the Parthenon were undertaken by Stuart and Revett about 1756, it was not till 1837 that the horizontal curves were seen and announced by Pennethorne and not till 1846 that they were measured by Penrose. There is an archæologist of distinction resident at Nimes, M. Aurès, who is thoroughly familiar with the observations of Pennethorne and Penrose and who has published measurements of the *Maison Carrée*. His measurements were devoted, however, to questions of ancient methods of metrology. They were taken for him by another person and do not, as published, include the curves. M. Aurès, who treated me with great courtesy, is of advanced age and so infirm that he was unable to examine the building with me. The following attestations from the architects Augière and Chambaud are therefore important.

I. "*Les mesures ci près*[2] *ont été prises avec l'assistance de M. Augière, architecte de la ville de Nimes. Il constate avoir observé les courbes avec M. Goodyear, et il constate qu'il n'y a pas eu poussée dans la corniche du côté Ouest.*[3] *Étant professeur de perspective M. Augière veut dire qu'il considère la théorie de M. Goodyear, sur l'effet perspective d'une ligne convexe en plan, nouvelle mais raisonnable. Quant à l'effet d'une ligne concave en plan à certains points de vue, c'est chose connue des professeurs de perspective.*"

(*Signed*), AUGUSTE AUGIÈRE.

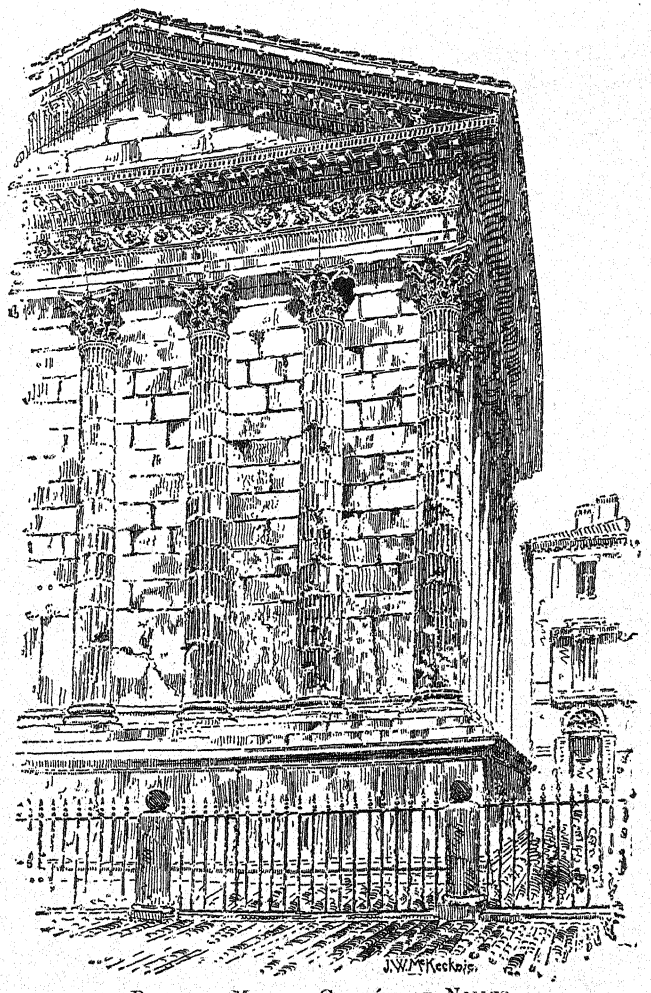
Architecte-Directeur des travaux publics de la ville de Nimes, Professeur d'Architecture et de Perspective à l'École des Beaux Arts. Feb. 20th, 1891.

The second letter is as follows:

[2] This matter is written on the leaf of the note book containing the original measurements.

[3] It was on this side that the observations for the cornice were taken as the curve is exaggerated on the East side by a movement in the masonry.

II. "*Le soussigné, Eugène Chambaud, Architecte de la ville de Nimes en retraite, après avoir examiné avec M. Goodyear, les lignes courbes de la Maison Carrée, a constaté l'existence de ces lignes, comme étant dans la dite construction ; toutefois avec la réserve que la courbe de la corniche*



REAR OF MAISON CARRÉE AT NIMES.
Drawn from a photograph to show the cornice curve.

du côté Est a été exagérée par une poussée de la toiture, mais aussi en constatant le fait qu'il y a courbe aussi de ce côté dans la construction originale, en vue du fait que la ligne des bases des colonnes est courbe de ce côté, comme sur les autres, et qu'il n'y a pas poussée dans la ligne

des bases ; en vue aussi que la poussée est loin d'être assez grande pour avoir produit la courbe de la corniche. Il estime que les théories de M. Goodyear, sur l'effet perspectif des courbes, sont raisonnables, et il remarque que la théorie sur l'effet de perspective d'une courbe convexe en plan est nouvelle mais possible. Il a remarqué avec lui que les variations dans les distances entre les colonnes sur quatre côtés du monument auraient sans doute un effet de perspective selon les idées de M. Goodyear. Les joints de la corniche du côté de l' Ouest ou il y a courbe de onze centimètres et demi, mesure de M. Goodyear, sont parfaits avec une seule exception qui n'est pas importante pour la question de la courbe.

Nimes, le 23 Février, 1891.

E. CHAMBAUD."

The curves which are thus attested to exist in the masonry construction and to have been measured with official concurrence and assistance are convex curves in the exterior plan of the cornice on both long sides of the building of about five inches deviation from a straight line at their centre. The curves are partly produced by leaning out the walls and engaged columns at and near the centres of the sides. Part of the curves may be obtained by a gradually projected arrangement of the blocks of the cornice itself, but the cutting of its profiles and dentils is too rich and complicated to allow of a definite observation on this point, as long as the masonry above is concealed by the modern roof and gutter. Slight curves convex to the line of vision may also be observed in the walls and engaged columns of the temple at the level of the stylobate. Although the decorative carving of the temple, frieze, cornice and capitals is extremely rich, the masonry will not compare with that of the Parthenon or other Greek temples for refinement of quality or construction. The curves, and the masonry arrangements by which they are produced, correspond to what one might expect from the general distinctions between the art of the Empire and that of the V century B. C. in Greece. However, although the masonry is coarse and careless as compared with the Parthenon, there can be no doubt that the joints of the cornice masonry show close fitting and that they are without any of the breaks on the East side which a movement of masonry due to bulging from accidental causes would necessarily exhibit. One piece of the cornice on the West side, that nearest

the South corner, has slipped downward and has weathered badly at the exposed surface, but the joint has not parted even here. The curve of the East side cornice appears to be nearly double that of five inches which I measured on the West side, but as the joints have parted here, I took the advice of M. Chambaud not to measure this curve.

One result of this extraordinary deflection in construction—extraordinary, that is, in its amount, from the standpoint of the Parthenon curves (which are more than doubled here for the given length),—is to give a pronounced effect of a rising curve in elevation to the entablature and cornice of the long sides. As seen at an angle of forty-five degrees a curve convex in plan will produce the effect of an equal curve in elevation—so I am advised by experts in perspective. Thus the observer standing near the centre of one of the long sides of the *Maison Carrée* and looking at the cornice at an angle of forty-five degrees has the effect of a curve in elevation double that of the long sides of the Parthenon for the given length and about three times as great as the curves of the Parthenon at the ends of that building, which correspond approximately to the length of the long sides of the *Maison Carrée*. The eye would naturally discount this effect as being one of perspective and it is quite certain, whatever may have been the purpose of the curves, that this apparent increase of dimension is one of their results for all eyes. Even when the curve is noticed the optical illusion is the same, for it is absolutely impossible for the eye to detect the curve as being anything but the optical curve of a line seen in perspective when facing the sides of the building. It is only by sighting near the angles that the curve is seen to be in the masonry.

It was this appearance of a rising curve in elevation, as seen in a photograph of the *Maison Carrée* in New York in 1879, which led me since that time to believe that the Greek curves would be found in the *Maison Carrée*, and my visit to Nimes was consequently made for the purpose of verifying this suspicion. The fact that Nimes was settled by a colony of Alexandrian Greeks, gave an additional stimulus to my anticipations. It has always appeared to me improbable that the use of the Greek curves should have been unknown to the Roman imperial period,

seeing that our only authority regarding them in ancient literature is a Roman who recommended their use; and seeing, also, that it was the prescription of Vitruvius which first suggested to Pennethorne that the curves might be found in the Parthenon.[4]

My observations at Nimes agitate once more the still undetermined question as to the purpose of the Greek curves in general. The explanation offered by Penrose[5] starts from the tendency to an optical downward deflection ("alveolation") in the straight cornice line of the pediment, and supposes the rising curve of this line to have had the purpose of counteracting this optical deflection; but in the *Maison Carrée* nothing has been done to counteract this "alveolation" which is very apparent in this building for the pediments; so much so that it appeared to me that this downward curve has even been exaggerated by the masonry construction. It has been made probable by Thiersch[6] that there is an "alveolation," or optical downward deflection, in the stylobate lines of a Greek temple as seen from below near the angles, and he supposes that the rising curves of the temple flanks were intended to correct this effect; but it is impossible that a bulging curve of five inches deflection was constructed in the *Maison Carrée* with reference to an "alveolation" of the side lines. Two considerations are conclusive on this head: (a) The "alveolation" was left without correction in the straight lines of the pediments, where it is naturally much more pronounced. (b) Thiersch does not claim an "alveolation" for the side lines except as seen near the angles, and here the bulging curve of the *Maison Carrée* could not produce the optical correction.

The German architect Hoffer, whose observations of the horizontal curves of the Parthenon were contemporaneous with those of Pennethorne, believed the curves to have had the purpose of increasing the apparent size of the building according to the principles of curvilinear perspective.[7] This suggestion was re-

[4] The existence of the curves in the ancient monuments appeared so improbable to the architect, Wilkins, who published a translation of Vitruvius in 1812, that he added a foot-note to the passage on the curves, intimating that such a refinement probably never existed in actual practice.

[5] *Principles of Athenian Architecture.*

[6] *Optische Täuschungen auf dem Gebiete des Architectur.*

[7] *Wiener Bauzeitung*, 1838.

vived by Boutmy[8] in 1870. Both these students confined their explanations to a point of view assumed to be nearly opposite the centres of the building and at some little distance from it, and I think it has not been observed that a line or surface, concave to tbe standpoint of vision, may produce a perspective illusion from every standpoint of vision to which it is concave. According to the teachings of perspective experts, a deflection or curve in a line or surface supposed to be straight concave to the line of sight, throws the extremity of that line, by an optical illusion, to the point which that extremity would occupy in a straight line of greater length. It follows from this that a curving line not obtrusive to the eye may produce a perspective illusion from every standpoint of vision to which it is concave. The proposition that a line or surface with curve convex to the line of vision may produce a perspective illusion for every standpoint to which it is convex, can be demonstrated without mathematics. I was tempted to submit it to the architects of Nimes above mentioned, and it now has the ratification of a professor of perspective. The proposition is probably novel. Should it meet wider acceptance it would not prove that the curves of the *Maison Carrée* had, among other possible purposes, a perspective intent; but it would prove that they have a perspective effect as result, and would consequently explain why they have so far escaped notice. The proposition may be stated for lines or surfaces convex to the line of vision and having apparently or approximately equidistant divisions, as follows: For every such line or surface assumed by the eye to be straight; given a point of view not opposite the centre of the line, the spaces nearest the eye are unduly widened and the spaces farther from the eye are unduly foreshortened—hence a perspective illusion. For every such line or surface assumed by the eye to be straight; given a point of view opposite the centre division, all other divisions are unduly foreshortened, and the centre division, which has increased width, as being nearer the eye, gives the norm of computation—hence a perspective illusion. The proposition is, therefore, that all architectural curves, in lines presumably or apparently straight, may produce a perspective illusion from whatever point viewed. In 1886 this

[8] *Philosophie de l'architecture en Grèce.*

proposition, in this shape, was verbally laid before a distinguished American architect and perspective expert, and was not received with disfavor. The most important effect of a curve convex to the line of vision in the upper line of a building is, however, without doubt, its tendency to exaggerate the ordinary appearances of curvilinear perspective, in this upper line, especially on near approach to the building. At points inside the angle of forty-five degrees the apparent elevation of that part of the cornice nearest the spectator is enormously increased, and the perspective effect of the descending lines, as seen on either side in perspective, is therefore enormously exaggerated. Plates I and II illustrate this effect in bird's-eye view. It is so much greater than the other effect I have suggested for a convex curve that the former seems hardly worth debating—unless we conceive that even the most delicate changes of appearance in dimension involve an optical mystification which was one result sought.

I should be sorry to damage the effect of a positive and matter of fact observation of great importance to archæologists by the introduction of theoretical matter, but the existence of a temple with curves confined to those convex in plan is undoubtedly outside the limit of explanations hitherto offered for the Greek curves. Moreover there must be a reason why a rather obvious phenomenon has hitherto escaped notice in a temple as well known as the *Maison Carrée*. No doubt the first impulse of any modern builder, architect or expert is to attribute deflections in the masonry of an ancient building to movements in the masonry due to accidental causes after construction and this cause of oversight must also be considered.

The intercolumnar spacings on the West flank of the *Maison Carrée* are as follows, measured from South to North in feet and inches—4, 2 : 4, 3 : 4, 3½ : 4, 3½ : 4, 4¼ : 4, 5 : 4, 3½ : 4, 3 : 4, 3 : 4, 4½. The intercolumnar spacings on the East flank, measured from South to North, are as follows—4, 6 : 4, 6 : 4, 3 : 4, 4¾ : 4, 3 : 4, 5½ : 4, 1½ : 4, 1 : 4, 3½ : 4, 4. The intercolumnar spacings at the Façade (North) end of the temple are, as measured from East to West—4, 1½ : 4, ½ : 4, 3 : 4, 1 : 4½. At the South end measured from East to West these spacings are—4; 4, 1; 4, 3¼; 4, 1; 4, 3.

The greatest variation in the intercolumniations of the Parthenon is about an inch and a half. Between the highest and lowest measurements here we obtain a variation of five inches. There does not appear to be any scheme in the Parthenon intercolumniations excepting that of optical mystification and it may be that these variations have no other purpose. The only scheme to which we find no exception in the *Maison Carrée* is that the central intercolumniations of each flank and of each end are wider than the spaces adjacent. Boutmy has announced a perspective scheme in the spacing of the metopes of the Parthenon which have a maximum variation of over three inches in favor of the central spacings, as against those of the angles.

My measurements at Nimes were much assisted by introductions from Professor Reginald Stuart Poole, who was acquainted in advance with the anticipated results of my visit. M. Henri Révoil, Architect of Historic Monuments, allowed me to place ladders against the building, and M. Augière deputed several workmen from the municipal employés and one of his assistants to help me. The *Maison Carrée* is, however, including the elevation of the stylobate, as high as the Parthenon, and it was found necessary to employ workmen accustomed to repairing roofs. These scaled the building by knotted ropes hung from the roof, and after securing themselves beside the cornice by iron hooks and a body belt, were able to determine the curve of the cornice by dropping a plumb-line from three different points (the angles and centre) to the stylobate below. The points thus fixed were marked and the amount of deflection was then established by a surveyor's line. M. Chambaud has a very exact knowledge of the roof and cornice masonry of the temple, having personally inspected the joints of the cornice during repairs which he made on the roof, and his verdict on the questions of cornice masonry must be regarded as final.

II.

There is said to have been a colony of Alexandrian Greeks settled at Nimes,[9] and the influences of Greek art and Greek race are generally recognized for Southern France. This may

[9] There is ancient authority for this statement, but I have lost my reference.

be an explanation of the survival of the Greek refinement of horizontal curves at this particular point. Inasmuch as the Greek curves are generally known as having been curves in elevation (not in plan), the existence of curves convex in plan on the long sides of the Poseidon temple at Pæstum is a fact to be emphasized. Penrose supposes that curves at Pæstum are confined to the pediments at the ends of the temple (curves in elevation), but Jacob Burckhardt attests the existence of convex cornice curves in plan on the long sides of the temple, and as being in the masonry construction and not owing to displacement.[10] This observation by Burckhardt is noted by Thiersch. The latter assumes, without proof, an accidental cause. Burckhardt confines his explanation to the point that the curved line has more beauty than the line which is mathematically straight, and that an effect of life and grace is obtained by its use. Since we now have at least two cases of classic temples showing curves in plan on the cornice line, as distinct from curves in elevation, it seems wise to publish observations which I have made for curves in plan, convex to the line of vision, in the temple courts at Karnak, Luxor, and Edfou. Mr. John Pennethorne, who discovered the curves of the Parthenon in 1837, had discovered two years earlier (1835) convex curves in plan in the cornices of the second court at Medinet Habou; but this observation was not published until 1878, and seems to have been utterly overlooked since that date by all Egyptologists. These curves have eight inches deflection on the short side of the court and four inches deflection on its long side. They are an excellent illustration of the optical illusion which results from a curve convex to the line of vision. It was impossible for me when standing in the court to distinguish these lines from the curves of perspective. Every person who has been in the second court at Medinet Habou, without noticing these curves, must have discounted their effect into an appearance of greater length in the sides of the court; and it should be borne in view that a knowledge of the existence of these masonry curves is not the slightest detriment to the optical illusion. It is only on the roofs of the porticoes and by sighting from the angles that the curves are detected as independent of optical effect. It may be added

[10] *Der Cicerone*, vol. I, p. 5.

that Egyptologists are generally agreed in attributing a purpose of perspective illusion to the arrangement of apartments in certain Egyptian temples, as regards the gradual descent in height of apartments, the gradual ascent in line of pavement, and the gradual narrowing in of apartments in the direction away from the entrance. This is mentioned, for instance, by Professor Maspéro, also by Professors Reginald Stuart Poole and Rawlinson.

My own observations in Egypt supplementary to those of Mr. Pennethorne, may now be noticed. At Edfou I observed curves of plan in the cornices of the great court convex to the line of vision. I measured the curve on the roof of the East side of the court and found that it amounted to ten inches. I believe the length of the side is 140 feet. This cornice has moved forward undoubtedly, as shown by a parting of its joints and by the parting of joints on the inside faces of the columns supporting it, but I measured curves on each of the four sides of the court *at the level of the pavement*, all convex to the centre of the court, each with a deflection of one and a half inches. From the construction of the courts at Medinet Habou and at Edfou, it is clear that the curves were obtained in the Egyptian cornice by a gradual leaning forward of the columns of a court, the lean to the front increasing as the columns approach the centre. At Medinet Habou, for instance, the curve in the line of columns near the bases is not perceptible to the eye when sighting for it, although the maximum of curvature in cornices is eight inches and instantly detected by sighting on the level of the roof. This method of construction would explain the displacement of the cornice at Edfou, which has exaggerated the curves, for all earthquakes and other forces tending to disintegrate the masonry would tend to weaken the building in the direction to which the columns were already leaned.

I found curves in the lines of the columns at Luxor in every court, and in each case convex to the centre of the court. These curves measured from one and a half inches to seven inches deflection. The central columns on two sides of the rear court at Luxor are shored up by beams since the excavation, finished in 1891, and would otherwise fall forward into the court. This movement of the columns is to be explained by an original con-

struction, like that at Medinet Habou and Edfou. At least that is my suggestion. The great court at Karnak was still so filled with rubbish in 1891 that one could ascend to the line of the architraves on both portico sides of the court. By sighting along the line of these architraves I verified the existence of very pronounced curves of several inches, convex to the centre of the court. I think that these curves may be owing, to some extent, to masonry displacement, but that this displacement has been a movement toward the centre of the court, owing to an original lean of the columns and original curve of the architraves in this direction. At Medinet Habou the portico roofs of the second court are in fine preservation, and there has not been the slightest parting of joints or displacement of masonry which could suggest an accidental cause for the curves.

We will notice finally, once more, that the effect of such convex curves in the upper line of a building is to increase the appearance of dimension to an extraordinary degree on near approach; that a convex curve is equal in effect, at an angle of forty-five degrees, to a curve of the same deflection in elevation; and that two writers, viz., Hoffer and Boutmy, have attributed the Greek curves in elevation to a purpose of perspective illusion.

All these various facts may be considered as helpful to an understanding of the curves of the *Maison Carrée* and of the temple of Poseidon at Pæstum.

I published an article in Scribner's Magazine for August 1874, entitled "A Lost Art," in which the purpose of optical illusion was ascribed to certain curves in masonry of the cathedral and other churches at Pisa. The announcement that deceptive perspective schemes in the arrangement of arches, pier spacings, and walls, is a widespread phenomenon in Mediæval cathedrals is probably original with me and I shall soon publish a work on this subject. The more widespread in time and place the use of optical refinements in architecture appears to have been, the greater probability attaches to each new instance of demonstrated intentional construction in which such an effect was obtained, that the effect obtained was intentional.

New York City.
February, 1895.

WM. HENRY GOODYEAR.

SOME RECENT RESULTS OF THE UNIVERSITY OF PENNSYLVANIA EXCAVATIONS AT NIPPUR, ESPECIALLY OF THE TEMPLE HILL.

[PLATES III, IV, V.]

The expedition to Babylonia which was sent out under my direction commenced excavations at Nippur February 6th, 1889, and continued them for two months. Work was resumed January 14th, 1890, and continued for the space of four months. During the first year we worked with a maximum force of 200 men. Naturally a large part of our work was tentative, especially the work upon the temple. During the second year we worked with a maximum force of about 400 men; and while we employed a considerable number of these in digging for tablets and making soundings in various parts of the extensive mounds, by far the larger part of the force was, from the outset, concentrated on the systematic exploration of the Temple Hill.

In 1892 a second expedition was sent out under the direction of Mr. J. H. Haynes, a member of my staff during the first two years, who had also had experience with other expeditions, especially the Wolfe expedition and the expedition to Assos.

Mr. Haynes commenced excavations April 11th, 1893, and continued them until April 3d, 1894, resuming work again June 4th, 1894, and continuing down to the present time. His average force of workmen employed has been about 50, and from September 1st, 1893, until November 24th, 1894, this force was concentrated upon the Temple Hill, continuing the systematic excavations which had been carried on at that point, and especially upon the ziggurat of the temple and its immediate surroundings.

A considerable section of the temple in front of the ziggurat to the southeast, has been removed, stratum after stratum, and the ziggurat itself followed down from its latest form to its earliest

with great care. The complete results of this work cannot be published until Mr. Haynes' expedition has returned, and there has been an opportunity for him and others to work up those results; but combining what was done under my direction during the first two years with what Mr. Haynes has so far reported for the subsequent two years, I am able to present some sort of a sketch of the history of the great temple of Bel at Nippur.

The accompanying plan (Plate III) will give some idea of the appearance of the temple enclosure at the close of the first two years' excavations. The shaded portions on this map represent actual excavations. It will be observed that the ziggurat has wing-like or buttress-like projections on all four sides and is curiously irregular in form. The ziggurat, as here represented, is composed of two stages. About it, on all sides, we find rooms or corridors. The ziggurat, with the various rooms, corridors and the like which surrounded it, was enclosed by a huge wall, which towards the southeast stood to the height of over 60 feet, and was almost 50 feet thick at its base. On the top of this wall, on the southeastern side, we found a series of rooms. There were irregular, tower-like masses at three of the corners of the great wall. The western corner, and a part of the southwestern side near the western corner, could not be found at all, having been apparently destroyed by water. At the eastern corner there was a singular mistake, owing to the lack of instruments of precision, by which the angle was made obtuse instead of right, thus giving the enclosure a curiously irregular shape. The corners of the great enclosure and of the ziggurat itself were not accurately orientated —the northern corner of the ziggurat pointing 12 degrees east of the magnetic north.

But to commence with the section A, B: the apparent level of the Shatt-en-Nil, or canal bed, which passes through the mounds of Nippur, is several meters above the true level of virgin soil, the old canal having filled up gradually with washings from the mounds about it. I sank a shaft to the depth of 19.3 metres from the 14 metre level, or 5.3 meters below the canal level, on the outer surface of the great wall, without reaching bed earth; and Mr. Haynes reports a depth of 68½ feet, or almost 21 metres, from the surface of the 14 metre level to virgin clay in a shaft

sunk by him in the great trench on the temple plateau, which would make virgin soil 7 metres below the canal level. I think this must have been an exceptional place, and that the true soil level is in general not much more than 5 metres below the canal level. My excavations were actually continued some two weeks after this section was completed, with the result, so far as depths go, of reaching 19.3 metres in the trench outside of the great wall instead of 18, as there indicated; of removing the inner wall, and of carrying the trench inside of the great wall and between it and the ziggurat down to 11.5 metres below the 14 metre level, at which depth we found the foundations of walls of the famous Sargon, king of Akkade, 3800 B. C. The trenches were connected with one another by a tunnel passing through the great wall, while a similar tunnel led from the trench outside of the great wall, through the mass of rubble before it, to the excavations marked "Shrine of Bur Sin."

The greatest depth reached under the ziggurat itself is not shown by this section, since it was off the line. By means of the trench, marked 56 on the plan, and the tunnel, marked 10, a point 2 metres below plain level was reached under the western corner of the ziggurat.

Commencing at A, on the level of the Shatt-en-Nil, there was a low wall-like line of mounds rising 3 to 4 metres above plain level, with a gate-like breach in the middle. This proved to contain a row of booths or small rooms with walls of mud brick. In the particular room or booth through which the section line passes, in the northern corner of the room, was found a large number of inscribed objects of ivory, glass, turquoise, agate, malachite, lapis lazuli, magnesite, feldspar, *etc.*, some in the process of manufacture and some complete, together with material not yet worked. All these had been contained in a box which had been buried by the falling in of the earth of the walls or roof and decayed away, leaving signs of its existence in long copper nails, in the position of the objects when found, and in some slight traces of oxidation left in the earth by decaying wood. These objects were found from 1.5 to 2.5 metres below the surface. The inscribed objects belonged to kings of Babylon of the Cossæan dynasty, from Burna-Buriash, 1342 B. C., to Kadashman-

Turgu, 1241 B. C. No later buildings had been erected at this point. The walls of the booths rested upon a foundation of earth heaped up for the purpose, but where we carried excavations lower, as in the breach-like opening, we found that other buildings had existed there at an earlier period.

Behind this outer low wall-line was a depression of the surface, beyond which again the ground sloped up quite steeply to the summit of the temple plateau, which was 14 metres above plain level. On this slope, at the point indicated in the section, was found the shrine of Amar-Sin or Bur-Sin, as the name is variously read, indicated on the plan at No. 11. This shrine stood on a platform of burned brick. Its walls were built of burned brick laid in bitumen, and from 7 to 14 courses were still in place. Almost all of the bricks bore a brief dedicatory inscription to Bel by Bur-Sin, king of Ur, about 2400 B. C., and longer inscriptions by the same monarch were found on two fine diorite door sockets in the two doorways. This building faced towards the ziggurat, as shown on the plan. Behind it, and belonging to it, was a well, also of burned brick. Apparently there had been statuary and ornamental basreliefs in connection with this shrine. An excavation of the gully beneath it revealed a pair of clasped hands from a diorite statue, which must have been similar to those found at Tello, and several inscribed fragments, including three fragments of basreliefs. An archaic looking mortar of volcanic stone was also found at the same place. These objects are reproduced in No. 2 of Plate V.

As we found it, this little building faced against a huge towering wall, under the débris from which it had been buried, but at the time of its erection either the wall did not rise above the level of the platform of this temple, or, if it did, there was in it a large opening serving as an entrance to the temple at this point. Walls of brick of Ur-Gur (2800 B. C.) are buried in the great wall. These walls were part of a causeway ascending from a point about on a level with and nearly in front of this shrine of Bur-Sin, to the top of the first terrace of the ziggurat. This shrine, therefore, reminds me by its position of the "high places of the gates," mentioned in the books of Kings (as, for example, II K., 23:8).

At a later date a certain King Gande scratched his inscription on the side of one of the door sockets of Bur-Sin. Of this king we know nothing, except that he caused his name to be scratched on the work of several older kings at Nippur; and his inscriptions also stand by themselves on three large, rude marble stones. His inscriptions are extremely barbarous in appearance. On top of the ruins of this shrine of Bur-Sin we found a poor wall of mud brick, with no clue to its age, and above this a mass of débris which had fallen from the great wall above.

The great wall was of really colossal proportions. It had a slope of one in four. At the bottom it was 15 metres in thickness, and at the top, as it at present stands, 9 metres. For 14 metres below the level of the plateau this wall was built entirely of unbaked brick, but below this, for 5.3 metres, it consisted of earth faced with a casing of baked brick .90 m. in thickness, and the slope of this lower part was less than that of the upper. That the wall was not homogeneous and all constructed at one time was clear, among other things, from the fact that a portion of the brick causeway, by which in Ur-Gur's day access was had to the upper stages of the ziggurat, was imbedded in it. A wall had evidently existed at this point from time immemorial, repaired and built upon by men of many ages, until it reached its present height. Originally, as shown by the fragments of a transverse wall found at a low level, there was an entrance over this wall on the southeastern side, by means of steps or an inclined plane; and as late as the time of Bur-Sin there was still an entrance at this point. At the time of the last great reconstruction this wall was raised to a much greater height, perhaps for purposes of defence, and there is no trace of an entrance in front. Rooms were built upon this last wall, as shown in the plan. On its inner side this wall was intended, in the last reconstruction, to be above ground to the depth of 5.5 metres only, the rest being a retaining wall to enclose a terrace. That terrace, as we found it, was composed largely of débris, but in many places, especially along the line of the walls, was found a filling of unbaked bricks in large square blocks. A somewhat similar wall surrounded the temple enclosure on all sides, and each side has roughly an outside measurement of 200 metres, excepting for the difference caused by the

fact that at the eastern corner, as already stated, by some mistake the angle was made obtuse instead of right. The corners of the wall, as of the building in general, point approximately toward the cardinal points, in such a manner, however, that the northern corner is 12° east of north. It may be added that I observed similar inaccuracies of orientation at Mughair (Ur) and Warka (Erech). The orientation of Babylonian buildings was merely approximate, and I am inclined to think that it was determined originally by the trend of the valley and the prevailing winds rather than by astronomical observations.

Within this outer wall on the southeastern side of the temple there was, as will be seen from both the section and the plan, an inner wall with two almost circular towers. The depth of this wall was 9.5 metres. It evidently was in existence at the time of Ur-Gur, and was perhaps first built by him. It must have been rebuilt and added to from time to time until it received its present form at the time of the last great reconstruction. As we found it, in the upper 5 metres of its surface it was beautifully plastered or stuccoed, while the lower 4.5 metres consisted of plain unplastered blocks of unbaked brick. A section of this wall was ultimately removed as far as the tower marked 63 in the plan, in trench 1; and that trench itself was carried a metre lower throughout than is shown in the section. This was done by me. Mr. Haynes more than doubled the breadth of this great trench, extending it toward the northeast, and also carrying it northwestward through the projecting southeastern wing of the ziggurat up to the line of the inner and more ancient ziggurat. He also removed all additions to the ziggurat itself until he had reached the original structure of Ur-Gur.

As will be seen from the plan and section, the great trench was carried in the first two years only up to the southeast wing of the ziggurat; but another trench was carried around the entire ziggurat, and that structure, a solid mass of brick and mud-brick, was explored through all its strata by means of tunnels and cuts. By this means we were able to ascertain that there was another and older ziggurat inside of that which our excavations had laid bare. The cut through the core of the ziggurat (No. 52) showed us that the depth of the mass of unbaked brick was 23 metres

from its highest point. With the exception of the outer casing belonging to the last great restoration, this mass was homogeneous in construction, consisting of unbaked bricks of small size, and in shape not unlike the ordinary bricks in use to-day. These were the bricks of Ur-Gur. They were laid in three different ways: first a layer on the edge, with the flat sides out; then a layer on the edge, with the ends out; and then a layer on the flat side, with the edges out. These bricks were often somewhat crushed out of shape by the weight resting upon them. Below the ziggurat, at the point of cutting (No. 52), we found first a metre of black ashes, and then a metre of earth, with occasional fragments of pottery. When we tunneled beneath the ziggurat at its western corner, 26 metres below the level of the summit, we found a drain of pottery rings, a fragment of a wall of baked bricks, plano-convex, the convex surface marked with thumb grooves, precisely similar to those shown on figures 15 and 16; an illegible fragment of an unbaked tablet, and a beautiful jade axe-head.

In a cutting at the other end of the ziggurat (No. 53), which descended about 9 metres from the top, we found so many bricks and the like as to suggest the existence on the summit of the ziggurat at some period, of a brick structure of some sort; but all surface layers of the ziggurat of the later and earlier periods alike were so ruined and worn away by the action of water that it was impossible to reach certainty on this matter.

As will be seen from the plan, the ziggurat, as discovered, was peculiarly irregular in structure. On both sides of the northern corner (No. 54) was a paneled wall of brick. This is a part of the ziggurat of Meli-Shiha. Everywhere else his ziggurat was buried under a new wall of huge blocks of mud-brick. Dotted lines at Nos. 38, 7, 49, 8, *etc.*, on the plan show remnants of older brick structures in various parts of the temple area, notably a grand tower at the northern corner (No. 38), buried in the mud-brick buildings of the last restoration.

Space will not permit an extended description of the meaning of the accompanying plan. Excavations were made, as will be seen, over a large extent of space, and in a general way the temple in its last reconstruction was laid bare.

In view of the great size of the temple—which covered within its inner walls a surface of about eight acres—it was impossible to excavate the whole of it systematically, removing stratum after stratum. For this purpose we chose, as shown in Fig. 2 a section immediately in front of the ziggurat to the southeast, between the ziggurat and the great wall, and conducted a large trench with a view of determining the successive strata. This enabled us to treat also the wall on one side and the ziggurat on the other. Ultimately it was found necessary to remove consid-

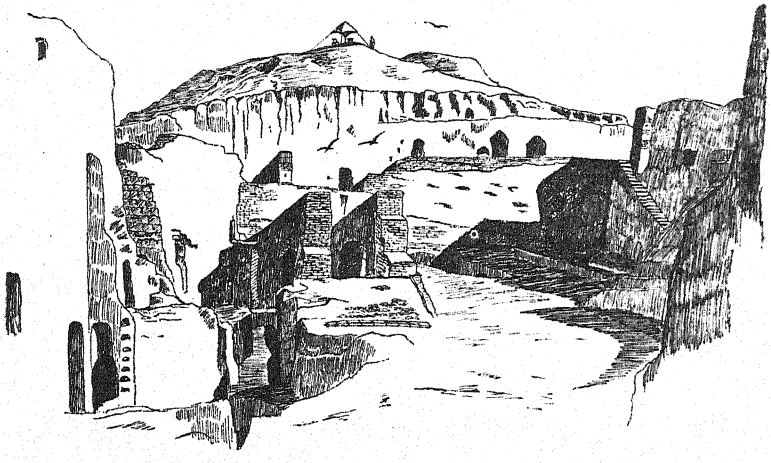


FIG. 2.—EXCAVATIONS ON THE S. E. SIDE OF THE ZIGGURAT OF THE TEMPLE OF BEL (June 5, 1894).

erable portions of the ziggurat in order to get at the original constructions, and to carry the large trench around the ziggurat on all sides.

Wells and similar shafts were sunk at other parts of the temple, wherever a favorable opportunity seemed to present itself, for the purpose of confirming, checking and reinforcing the results obtained from the excavation of the space in front of the ziggurat; but in giving the result of the excavations for the purpose of determining the history of the temple, I shall confine myself to the large trench in front of the ziggurat and to the results obtained in the excavation of the ziggurat itself, premising that there are still many matters which need to be worked out more fully, and which can be only tentatively given until the full re-

sults of Mr. Haynes' work are at hand, and have been compared carefully with the result of the work of the first two years.

Before excavations began the ziggurat was an almost conical hill, known to the Arabs as Bint-el-Amir (Daughter of the Prince). Around this, on all sides, was a plateau, seamed here and there with very deep gulleys. The general height of this was 14 metres (see for general appearance of mounds PLATE IV).

On this plateau we found, first of all, a surface layer of $2\frac{1}{2}$ to $3\frac{1}{2}$ feet of earth. In this, close to the ziggurat, on the southeast side, were poor walls of mud brick, remains of a number of rooms or huts of a late period. To the northwest of the ziggurat we found two or three Jewish bowls, such as were also found in great numbers in a Jewish village on another hill, in which latter case coins of the Kufic period gave us as a date the VII century after Christ. Here and there on the plateau of the ziggurat were coffins and tombs, which are to be ascribed variously to the Parthian, Sassanian and Arabic periods, although no remains were found which would enable us to date any of them with precision.

The remains in this upper layer of earth point to a time when the temple was no longer a temple, but when the plateau and Bint-el-Amir were merely a *tel*, the latter affording protection, and a side hill for the building of huts, and the former a suitable place for burial, according to the ideas of the people. In this stratum, very little below the surface, was a layer of fine white ashes, pretty evenly distributed over the surface of the plateau, evidence apparently of the use of the hill by alkali burners.

Below this later stratum, or these later strata of earth, we came to a series of constructions which belonged together, constituting one whole (Fig. 3). Walls of unbaked brick stood to the height of $14\frac{1}{2}$ to $15\frac{1}{2}$ feet. To the southeast, northeast and southwest of the ziggurat were rooms or houses; to the northwest and north were very fine series of corridors. The whole, as indicated in the plan (PL. III) was bounded by a vast retaining wall. On the southeast side the rooms or houses were contained within an inner wall, which was relieved by two singular solid towers of a conical shape. Outside of this wall, and between it and the great retaining wall, was a huge corridor. Through the inner wall was no door, but passage to the ziggurat was obtained by a circuitous

route around to the south and southwest. The walls of the rooms and corridors of this series were in almost all cases finely stuccoed with a plaster of mud and straw, smoothly laid on, and many of them had been tinted, but always seemingly in solid colors.

The accompanying sketches and plans by Mr. Joseph A. Meyer, Jr., who has been with Mr. Haynes for the last year as draughtsman, will give some idea of the appearance and character of the rooms to the southeast and east of the ziggurat. All of the

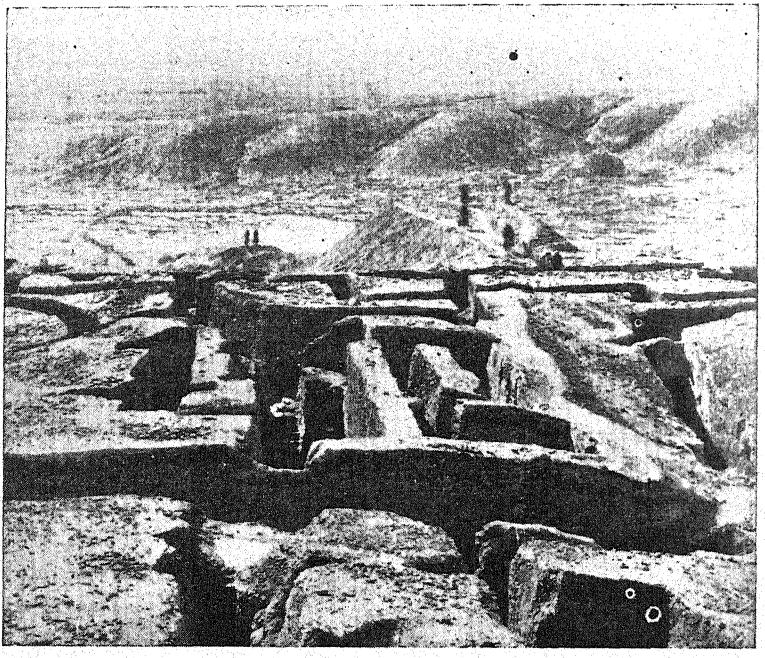
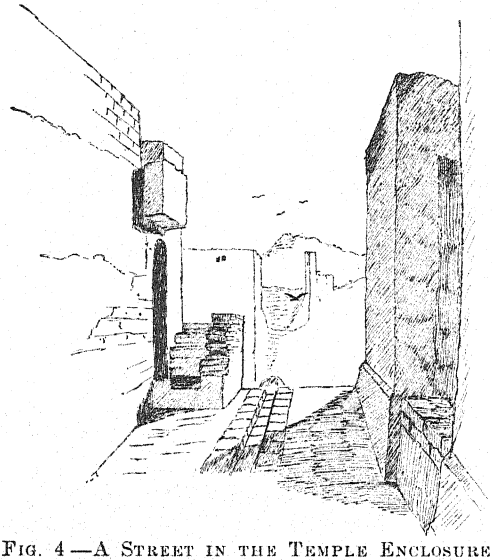


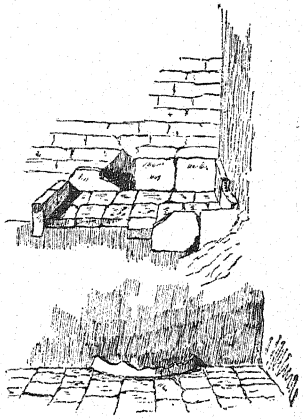
FIG. 3.—ROOMS S. E. OF ZIGGURAT OF LATE BABYLONIAN PERIOD. EXCAVATED AT BEGINNING OF SECOND YEAR.

rooms on this level were occupied during two or three successive periods, as is shown by the walling up of doors on lower levels and the opening of others on higher levels, the building of threshold upon threshold, *etc.* The accompanying sketches of Mr. Meyer give a specimen of a house occupied in three or possibly in four successive periods, as shown by the doors. I can-

not do better than to repeat Mr. Haynes' words with regard to these sketches:

"Fig. 4 gives a sketch in perspective of the street shown in the accompanying plan (Fig. 5). It looks towards the south-southwest, and shows its continuation along the face of the south-





(*a*) FIRE PLACE OF BRICK.
(*b*) FIRE PLACE WITH TERRACOTTA FENDER.

FIG. 4.—A STREET IN THE TEMPLE ENCLOSURE, S. E. OF THE ZIGGURAT (July 5, 1894).

eastern buttress of the ziggurat, and under the steps on the opposite side of the great trench. In the middle of the unpaved street is a well-made gutter of burned bricks. The masonry of combined crude and burned bricks, in the left hand middle distance, shows a stairway descending from the filled-up street of what seems to be a well-defined period in the occupancy of these houses, and the continued use of the street, to the lower room of a house, that was continuously occupied and kept free from accumulating earth long after the street and the neighboring houses had become filled to a higher level with earth and débris, even after the doors of other houses had been raised to enter the street over a low threshold, sometimes of burned, often of crude bricks. . . . The walls of these houses clearly show three distinct periods in their occupancy. After the first occupation, during which time the street and many of the houses were filling with earth,

the walls of crude bricks were at least twice raised to a higher altitude, and twice were the doors carried upward to a corresponding height. The house in the left of the accompanying sketch (Fig. 4) shows three doors marking the three clearly-defined periods in the history of these houses. The lower door, with the segmental arch, belongs to the first period; the second door was closed by a mass of crude brick, which projected beyond the face of the walls; and the opening above this projection is the ruined door of the third and last discernible period.

"Figure 4 also shows toward the right hand sketches of two fireplaces. . . Figure 6 gives the cross-section and ground-plan of the street at the point of the door shown in the left hand of the foregoing sketch. It also shows cross-section and elevation of the doors of the first and second periods, belonging to the above houses, and shown in the sketch and in the section and plan of the street given in Figs. 4 and 5.

"Figure 7 is a sketch of the domestic pottery taken from this series of rooms. . . The large vase in the centre of the group was perforated—probably to allow the escape of water. It was sunk below the floor of earth in the northern corner of the room numbered 121 on the accompanying plan (Fig. 5). Around

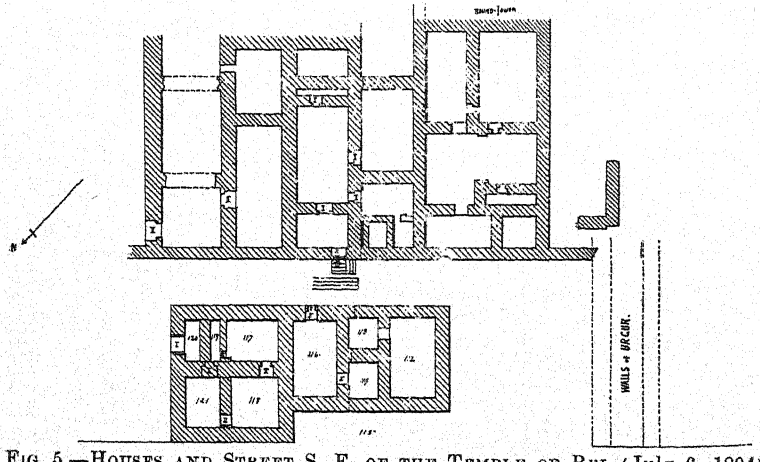


FIG. 5.—HOUSES AND STREET S. E. OF THE TEMPLE OF BEL (July 6, 1894).
Scale, .021 in. = 1 ft.

the jar's mouth was a bit of bitumen cement, apparently designed to convey water into the jar, which would seem to have served as

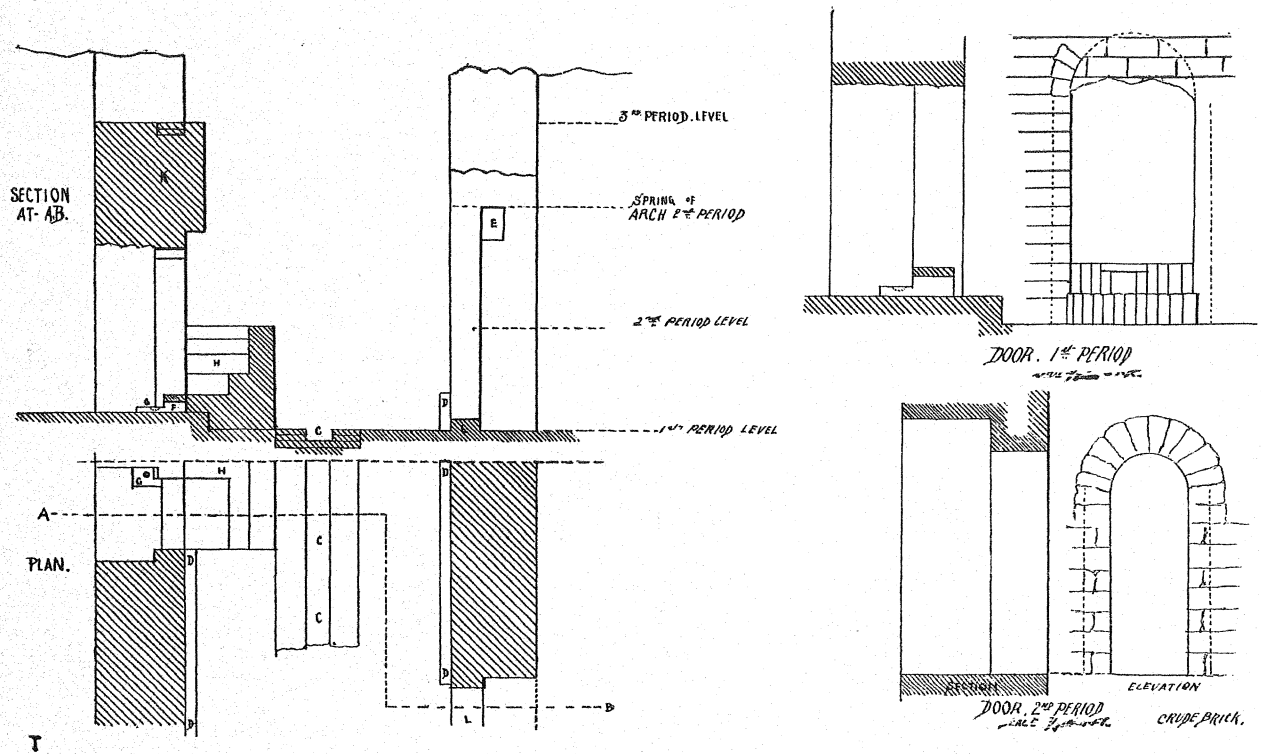


FIG. 6.—PLAN AND SECTION OF A STREET S. E. OF THE ZIGGURAT. (*Scale*, .125 in. = 1 ft.)

A. B. Line of the section.
C. Gutter of burned brick.
D. Projection of foundation.
E. Niche in door jamb, second period.
F. Passage for water under the threshold.
G. Brick door-socket.
H. Steps leading down from level of second period.
K. Wall filling the door, third period
L. Brick threshold, first period.
M. Step on level of first period.

a drain, although a more unsanitary method of plumbing could scarcely be devised. Drainage was generally effected by a sluice under the threshold of the door into the street, or by a small drain through the wall of the house, also into the street, the sloping floors facilitating the fall of the water into the drain."

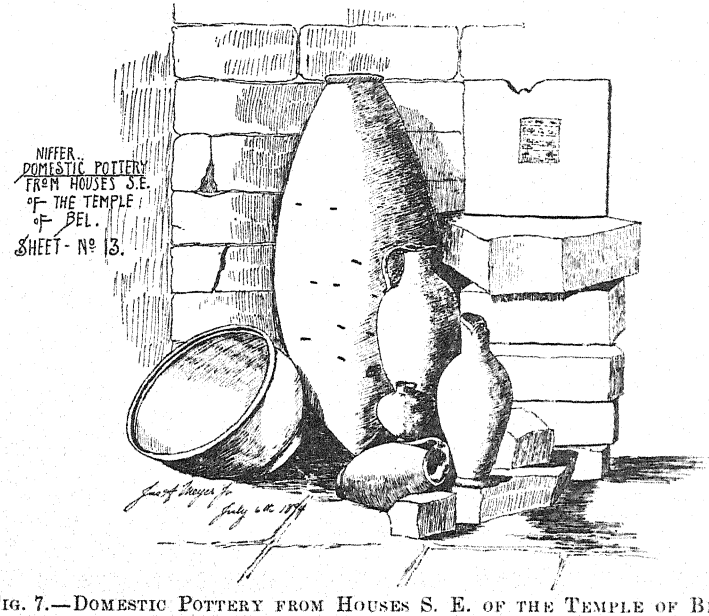


FIG. 7.—DOMESTIC POTTERY FROM HOUSES S. E. OF THE TEMPLE OF BEL.

Figure 8 exhibits in detail the curious and interesting door socket and threshold of burned brick seen at G on Fig. 6.

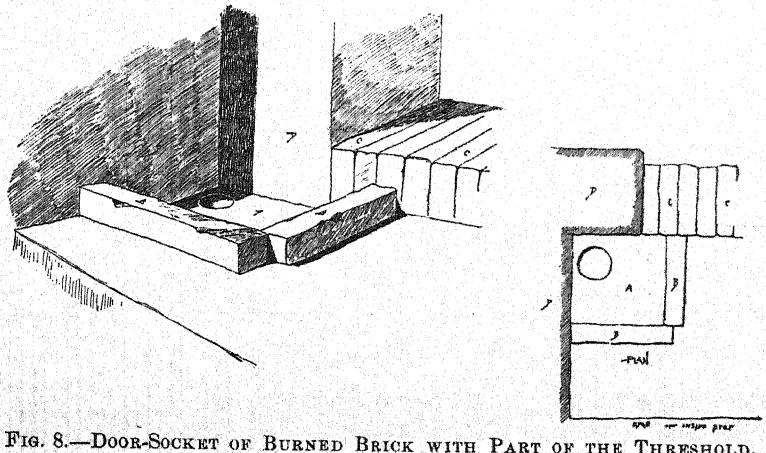


FIG. 8.—DOOR-SOCKET OF BURNED BRICK WITH PART OF THE THRESHOLD.

Figure 9 exhibits the drains and ventilators found in the walls of houses of the first of the three periods here represented.

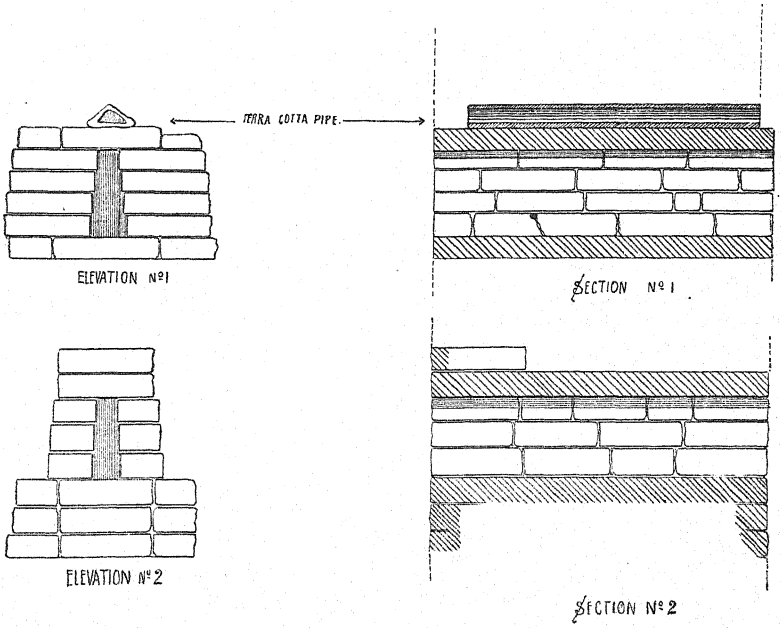


FIG. 9.—VENTILATORS OR DRAINS FOUND IN STREET WALLS OF HOUSE OF THE FIRST PERIOD S. E. OF THE ZIGGURAT. (*Scale*, .445 in. = 1 ft.)

It was evident that these rooms or houses were occupied during a considerable period of time. Some pottery and terracotta figurines of Greek work (PL. V, 1) show that a portion of that time at least was in the Seleucidan period, but there are no remains which enable us to fix either a *terminus a quo* or *ad quem* for these buildings. I am inclined to ascribe their origin to the later Babylonian empire, partly on the ground of general similarity to other structures of that period found in Babylonia. The cruciform shape of the ziggurat is, to be sure, unlike anything else which has been discovered, but the relation of these rooms or houses to the ziggurat is in general the same as that of the rooms or houses unearthed by Hormuzd Rassam at Borsippa to the ziggurat of the temple of Nebo built by Nebuchadrezzar.

As already stated, these buildings were removed in a line between the central portion of the ziggurat and the great wall to

the southeast, during the second year of my excavations, and a large trench was conducted at that point through the successive strata underlying these buildings. This trench was very much enlarged by Mr. Haynes and carried still deeper. The general results of the examination of the successive strata at this point were as follows:

The houses or rooms described above had their foundations 18 feet below the surface, and rested upon earth, well packed together, 3 feet in depth. This again rested upon a mass of rubble and débris containing no walls, but great quantities of bricks and fragments of bricks with inscriptions of Meli-Shiha, and also bricks with green glazed surfaces. The same stratum was found at the same depth on the northwest side, on the southwest, and on the northeast—that is, on all four sides of the ziggurat. This would seem to indicate that there had been a very thorough demolition of some former structures before that restoration of the temple which gave the ziggurat its cruciform shape and surrounded it with the buildings of unbaked brick which have been described above. It would also seem that the last important builder before the reconstruction, which I have referred to the late Babylonian empire, was Meli-Shiha. This Meli-Shiha, who, as we shall find shortly, played a very important part in the reconstruction of the temple, was identified by Prof. Hilprecht, in his *Old Babylonian Inscriptions* (p. 55), with Meli-Shikhu, a king of Babylon of the Cossæan dynasty, who ruled 1171–1157 B. C. Now, however, on the basis of further examination of more inscriptions, Prof. Hilprecht reads the same not Meli-Shiha, but Ashurbanipal, thus changing the date to 669–626 B. C.

The mass of débris and rubble, as stated, was about 4 feet in thickness. Below this, to the southeast of the ziggurat, and extending as far as the inner wall with the round towers, indicated on the plans, there existed, apparently as late as Meli-Shiha's time, an open court paved in brick. Various fragments of pavements were found in different parts of this space, and at one place three successive pavements occurred within a space of five feet. Inscribed bricks found in some fragments of pavement show that one of these was the work of Ur-Ninib, king of Isin, perhaps about 2600 B. C. The other pavements consisted of uninscribed

bricks, and it is therefore impossible to assign to them a certain date until further excavations at the north and south shall discover buildings connected with this platform which may enable us to do so.

During this whole period the line which is now marked by the inner wall on the plans seems to have been the boundary of this court toward the southeast, and the two conical solid towers which were exposed by my excavations as forming part of the last great reconstruction of the temple, appear to have been in existence at the same place during this whole period. These great towers I am inclined to compare with the columns called Jachin and Boaz before the temple of Yahweh, at Jerusalem, with the similar columns before the temple at Hierapolis, and before Phœnician temples. Similar columns also existed in temples in Arabia, and the towers found by Bent in his excavations in Mashonaland seem to be of the same character. I suppose these towers, therefore, to have been sacred pillars representing the principle of life—gigantic, conventionalized phalli. They do not differ in shape or position from the columns used in the temples mentioned, but only in material and size.

At about 30 feet below the surface of the plateau of the temple, to the southeast of the ziggurat, we came upon a pavement of Ur-Gur, about 2800 B. C. This was of crude brick eight feet thick at its thickest point. It constituted an enormous platform or terrace, on the northeastern edge of which stood the ziggurat, while the southeastern part, as far as the towers, was an open court. This court was flanked, at least on part of its northeastern side, by buildings, but its further dimensions we do not know. Immediately below this was found at one point another pavement of bricks of unusual size, 18 and 20 inches square, with a thickness of three inches. This pavement was identified by Mr. Haynes as a pavement of the time of Naram-Sin, king of Akkade, 3750 B. C., or of Sargon, his father, 3800 B. C., by comparison of inscribed bricks of these same monarchs found elsewhere. Immediately to the northwest of the temple is a plain, bounded on the northern side by a wall line, which seems to be the outer wall of the city at that point. I conducted excavations here in the second year of my work, and later Mr. Haynes did the same with

greater success. This wall was found to consist in its lower part of unbaked bricks, stamped with the stamp of Naram-Sin, king of Akkade, the stamped face turned down. Immediately above this, with no intervening work, was found a wall of Ur-Gur. The bricks of Naram-Sin were of singularly large size, of well-mixed clay, tempered with chopped straw, carefully moulded and thoroughly dried, so as to attain an unusual hardness and firmness of texture. The bricks of Ur-Gur are of almost equal excellence, but of small size, and of a shape much resembling our ordinary modern bricks. So characteristic are the bricks of Ur-Gur that it is generally possible to determine a structure of his without inscriptions. The bricks of Naram-Sin, and of Sargon, his father, seem to be equally characteristic in a quite opposite direction; and it seems, therefore, safe to assign this fragment of a platform to one of these kings, especially since their work was immediately below that of Ur-Gur in the outer city wall.

It should be added that the platform of Naram-Sin or Sargon was not coterminous with that of Ur-Gur above it, for at various points in the great trench and elsewhere on the plateau I discovered walls of unbaked brick, among which were three door sockets of Sargon, king of Akkade—two of them apparently in place and one inverted. I also found at this level a clay brick-stamp of the same king. There were also found here quantities of vases and vase fragments, chiefly in marble, of a new king, "Alu-Sharshid, king of the city," who has been identified by Prof. Hilprecht as of the same dynasty, and approximately, therefore, of the same time as Sargon and Naram-Sin. Other fragments of vases of this latter king, it should be added, were found both by Mr. Haynes and myself above the level of the Ur-Gur platform, some of them containing a second inscription of that Gande mentioned above, whom Prof. Hilprecht identifies with Gandash, founder of the Cossæan dynasty, and who, therefore, ruled about 1450 B. C. It would seem that the stratum of the dynasty of Akkade, containing remains of the three kings, Sargon, Naram-Sin and Alu-Sharshid, lay in general immediately below that of the dynasty of Ur, represented by Ur-Gur as its great builder. The depth of the bottom of the Ur-Gur stratum was nine metres, of that of the Sargon stratum about 11.5 to 12 metres. Mr.

Haynes continued the trench to a point some 16 feet below the bottom of the Ur-Gur platform, or about 54 feet beneath the surface, and sank a shaft to the depth of 68½ feet, at which point he says that he reached virgin soil, although water was reached at a slightly higher level. My excavations were carried down systematically to a point 11.5 metres below the surface, and by a shaft I descended to the depth of 14 metres, or 46 feet. At the depth of 12.95 metres I found a large jar, the same as those found through all periods down into the post-Babylonian. Below the depth of about 40 feet nothing was found by which dates could be fixed. It will be seen from the above figures that, according to the dates ordinarily accepted by Assyriologists, the upper 40 feet of accumulations in this great trench represent a period of not less than 4500 years; how long a period was represented by the 28½ feet below this level we have as yet no way of determining.

Figure 10 gives a view from a sketch by Mr. Meyer of the condition of Mr. Haynes' excavations at the end of the great trench toward the ziggurat, and including the eastern corner of the ziggurat, on Sept. 10th, 1894, after the great southeastern wing or buttress and the late ziggurat wall built over that of Ur-Gur had been removed. I will quote Mr. Haynes' explanation of this drawing:

"A is Ur-Gur's burned brick wall, forming the façade of the lowest stage of the ziggurat.

B shows a small part of the causeway (of Ur-Gur).

C and D are wells sunk to the water-level.

E is the altar (this will be described later; its upper surface was nine feet below the level of the Ur-Gur platform).

F is a curb of peculiar archaic-looking brick, seven courses high. It seems to mark a sacred enclosure, possibly extending around the earlier temple. It has been traced through the tunnels SS to the southwestern side of the great southeastern projection of the cruciform temple of later Babylonian times. Its limits have not been found. (The same wall was found by me under the ziggurat, at its western corner.)

G is a section of the pavement on which the bitumen construction was laid to protect the foundations of Ur-Gur's ziggurat from falling rain. This pavement, from front to back, is ten feet wide.

H.—In a tunnel underneath this pavement at H is shown a section of the very ancient wall recently discovered. This wall has about the same batter as the later wall of Ur-Gur above it. Both

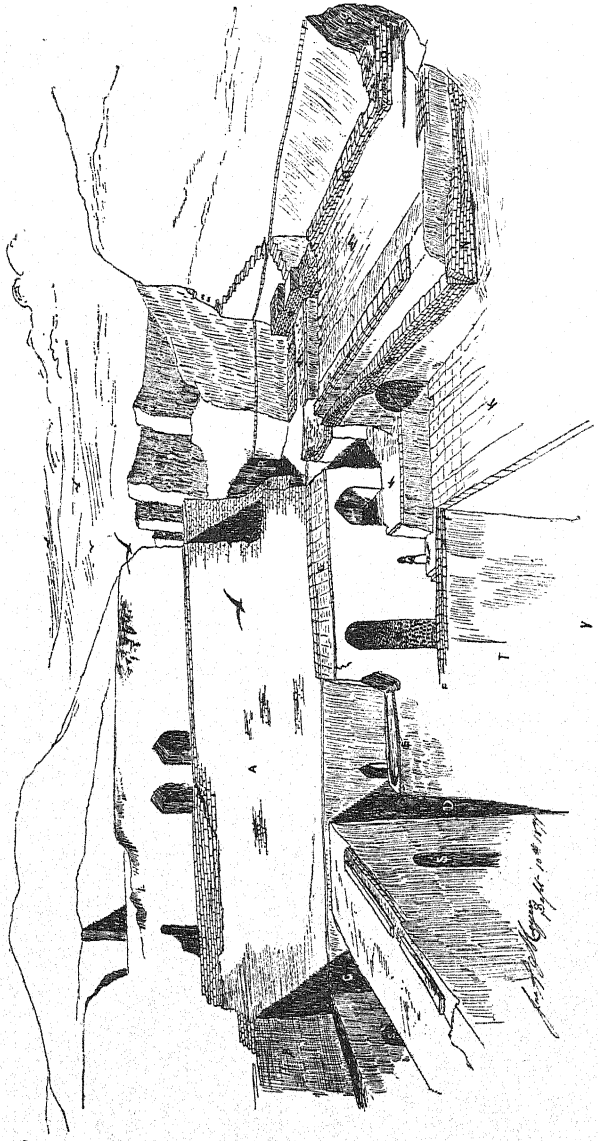


FIG. 10.—GREAT EXCAVATIONS E. OF THE ZIGGURAT.

walls are in the same plane. Hence it can be literally said that Ur-Gur built upon older foundations, although a thick platform lies between the two walls.

K.—The pavement KK lies eight feet below the foundations of Ur-Gur's ziggurat. It extends at least forty feet toward the northeast. Its limits toward the southeast are a matter of conjecture. The bricks in this pavement are about the same size and mould as the bricks of Sargon and Naram-Sin already found. Ur-Gur laid his great platform on the level of this pavement.

M.—The pavement M apparently belongs to the construction whose wall is marked OOO.

N.—N is a very old wall, which evidently antedates Ur-Gur, since it interrupted his platform, and lies wholly within the platform itself.

OP represents a tunnel following the ruined wall OOO toward the northeast, a distance of eighty feet and three inches, to the eastern corner of the building. The foundations of this building and the temple of Bel are on the same level. At least the southwestern end of this building seemed to have been filled solid with crude bricks of the Ur-Gur size, form, color and texture. Could it have been a temple to Beltis, repaired by Ur-Gur?"

Figure 2 represents excavations in the same trench three months earlier, and gives a good view of the causeway of Ur-Gur, which was just visible on the extreme left of Figure 10. The walls of this causeway are each four feet thick, of burned bricks, most of them stamped with the name of Ur-Gur, laid in bitumen. These walls are nine feet apart, and the intervening space is filled with libben or unbaked brick.

Figure 11 gives a more detailed view of the archaic curb marked

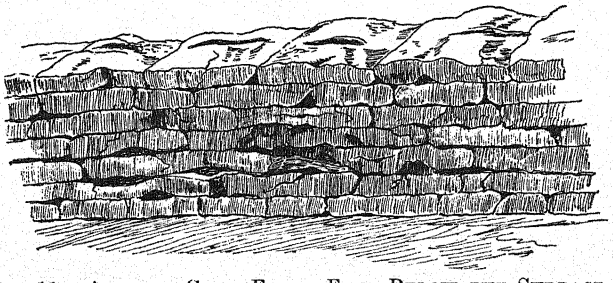


FIG. 11.—ANCIENT CURB FORTY FEET BELOW THE SURFACE.

F on Fig. 10, and Fig. 12 represents one of the plano-convex bricks of this curb. The foundations of this wall Mr. Haynes

reports as being 13½ feet below the bottom of the Ur-Gur wall, which would make it identical in level with the wall of precisely similar construction found by me under the western corner of the

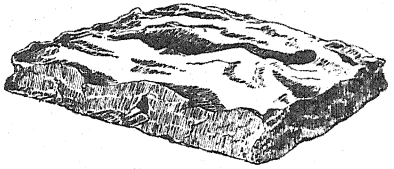


FIG. 12.—RUDE BURNED BRICK FROM THE ABOVE ARCHAIC CURB.

ziggurat, and render still more probable Mr. Haynes' proposition that it enclosed a sacred area. The remains of this wall were 18 inches high, and the bricks were laid in mud in courses alternately lengthwise and crosswise. It seems to be older than the time of Sargon, as it is below his level.

Before the ziggurat, beneath the Ur-Gur level, in the stratum elsewhere assigned to the Sargon dynasty, was found an oven, in which was discovered a new baked clay tablet. This tablet has not yet been deciphered. Like some other tablets found at similar low levels, it is inscribed on one side only. Immediately above the Ur-Gur wall, in the same trench, were found a number of other tablets of most exquisite workmanship, which, like this, have not yet been deciphered. To the northeast of the ziggurat projection, was found a pottery drain in place. The accompanying Figures 13 and 14 give excellent illustrations of different forms.

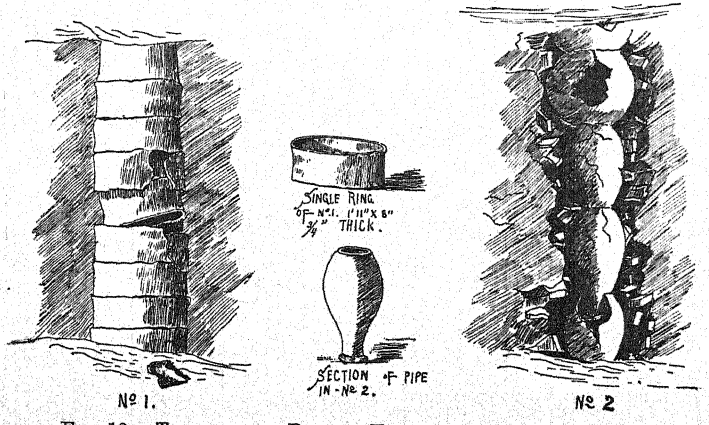


FIG. 13.—TERRACOTTA DRAINS FOUND IN MOUND NO. 8.

of these drains, so characteristic of the ruin mounds of Babylonia from the time before Sargon up to the latest period. Sometimes they are composed of rings made for the purpose, sometimes jars are broken at top and bottom and fitted together, as in Fig. 13, No. 2. These drains are often 40 or 50 feet in depth.

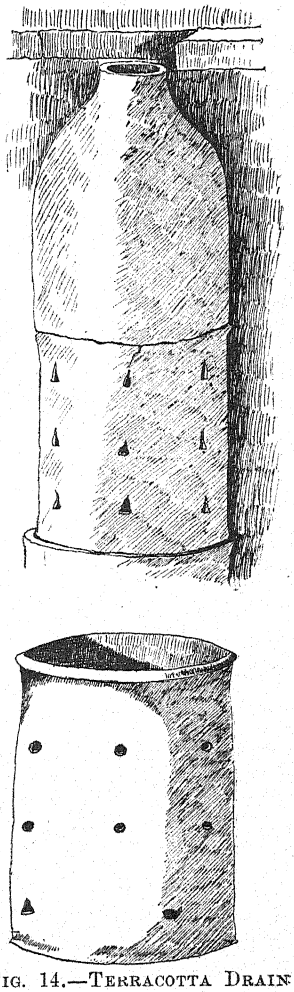


FIG. 14.—TERRACOTTA DRAIN INLET FROM MOUND VIII, AND LOWER SECTION OF THE SAME DRAIN.

I have now given a survey of the strata unearthed in the great trench to the southeast of the ziggurat. More important results were obtained by the careful excavation of the ziggurat itself. It was ascertained that the ziggurat which forms the core of the existing structure was the work of Ur-Gur. Toward the northeastern edge of his solid platform of unbaked brick, eight feet in thickness, Ur-Gur erected a ziggurat in three stages. The lowest of these stages was $20\frac{1}{2}$ feet in height, the sides sloping upward at the rate of one in four. The second terrace set back $13\frac{1}{2}$ feet from the surface of the one below it. The height of this terrace at its slope I am unable to give, as also that of the terrace above. The lower terrace was faced with burned brick on the southeastern side looking toward the great open court. On all of the other sides there was a foundation of baked bricks four courses high and eight wide, above which the material used was unbaked brick covered with a plaster of fine clay mixed with chopped straw, which, being often renewed, preserved the crude bricks beneath as well as if they had been burned by fire. In the middle of each of these three sides was a conduit for the purpose of carrying away water from the upper surface of the ziggurat

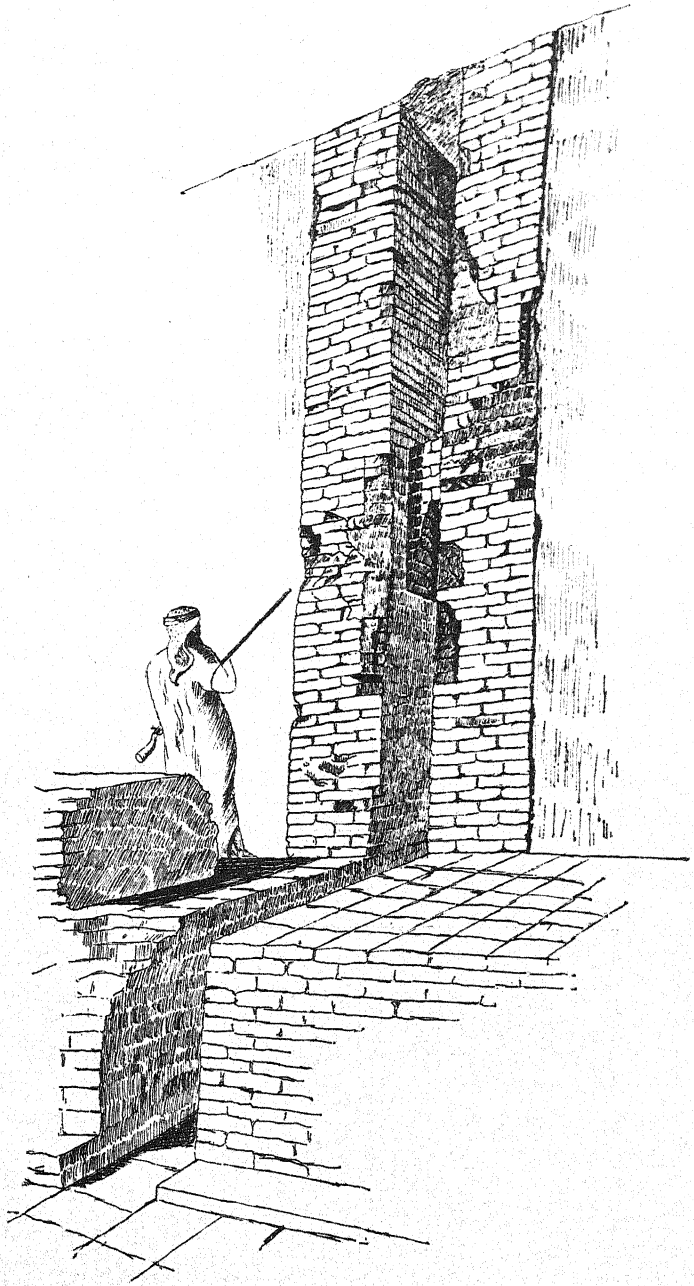


FIG. 15.—WATER CONDUIT ON THE S. W. FACE OF THE ZIGGURAT.

(Figures 15 and 16). This conduit was built of baked brick, and had an inner breadth of $3\frac{1}{2}$ feet and a depth of $10\frac{1}{2}$ feet. There was apparently a similar arrangement for carrying off the water

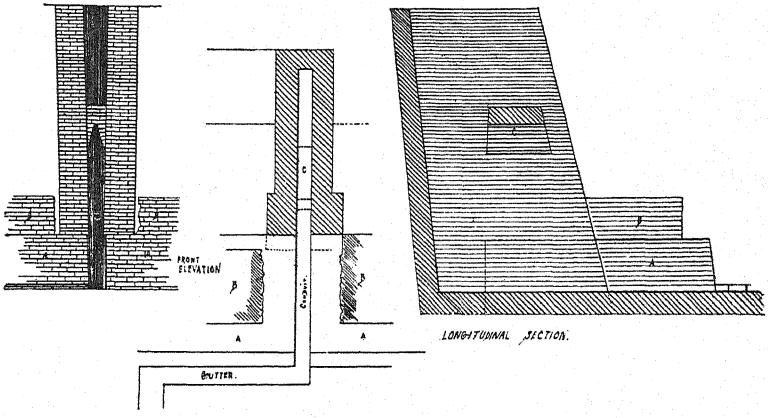


FIG. 16.—WATER CONDUIT ON S. W. SIDE OF THE ZIGGURAT. (*Scale*, .078 in. = 1 ft.)

in the second and third stages; but it was ruined beyond possibility of restoration. Indeed, both of these stages were so ruined by water that it was difficult to trace or to restore them.

Around the base of the ziggurat, on all sides, was a plaster of bitumen, sloping outward from the ziggurat, with gutters to carry off the water. By this arrangement the apparently very perishable foundation of unburned brick was thoroughly protected from destruction, and unburned brick, protected like this, is, at least in the climate of Babylonia, one of the most imperishable materials of construction that can be found.

The first important change in the form of the ziggurat was made by Kadashman-Turgu, 1257–1241 B. C. He built around the ziggurat of Ur-Gur on three sides, at the base, a casing wall of brick sixteen courses, or $4\frac{1}{2}$ feet, in height, but preserved and utilized the conduits of Ur-Gur. His is the wall exhibited at the base in Figures 15 and 16.

The next great reconstruction was undertaken by Meli-Shiha. Upon the casing wall of Kadashman-Turgu he erected at a slightly different angle, and somewhat set back from the other, a second wall. The conduits on the southwestern, northwestern and northeastern sides he filled up with bricks—many of them



FIG. 17.—N. E. FAÇADE OF THE ZIGGURAT SHOWING THE BUTTRESSED OR PANELED WALL OF MELI-SHIHA AND A FRAGMENT OF THE LATER WALL ABOVE.

stamped with his name—and the upper part of the lower terrace he faced on these three sides with a paneled wall of brick (Fig. 17), giving to the ziggurat quite a different appearance from that which it had hitherto possessed, and enlarging its dimensions, so that when left by him it measured 170 feet by 125 in length and breadth, or very little less than the ziggurat of the temple of Sin at Ur. The reconstructions of Kadashmán-Turgu and of Meli-Shiha seem to indicate a filling up of the surface immediately about the ziggurat by the washing down of mud from above. This process continued through the ages until, as we shall see, the greater part of the ziggurat was ultimately buried beneath the accumulations washed down from its own upper surfaces.

Fig. 18, like the rest, from Mr. Meyer's drawings, gives a section

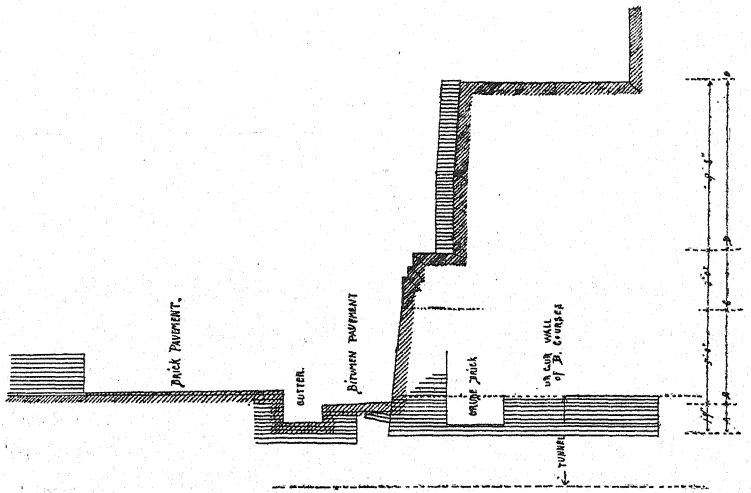


FIG. 18.—SECTION OF N. E. WALL OF ZIGGURAT, THIRTY FEET FROM E. CORNER. (*Scale*, .100 in. = 1 ft.)

view of the northeastern wall of the ziggurat after Meli-Shiha's restoration. Within is seen the original wall of Ur-Gur, the two lower courses of which continue outward and form the two lower courses of Kadashman-Turgu's wall also. In front of Ur-Gur's wall, on this side, was a filling of crude brick three feet in thickness, and in front of this Kadashman-Turgu's wall of about the same thickness. Kadashman-Turgu's wall is 4½ feet high, rising, with the foundation of Ur-Gur beneath, to the six foot level.

Upon the wall of Kadashman-Turgu, for three feet, stands the foundation of Meli-Shiha's wall, at a different angle, as stated; and above this, but setting back from it, the paneled wall described above rises still nine feet further. The drawing shows the peculiar curvature of the upper wall of Meli-Shiha.

Figure 19 represents the elevation of the northeastern side of the northwestern façade, and shows the later structure erected on Meli-Shiha's wall. A represents the wall of Kadashman-Turgu, B and C that of Meli-Shiha in its two parts. On this

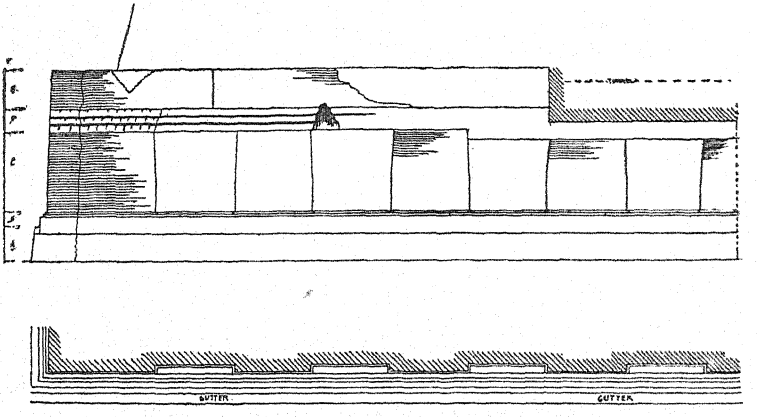


FIG. 19.—ELEVATION AND PLAN OF THE N. W. FAÇADE OF THE ZIGGURAT, AT N. E. END. (*Scale*, .042 in. = 1 ft.)

was built, at a later date, a wall of unbaked brick (D), of which three courses remain. The crude bricks of this wall are the characteristic bricks of the great reconstruction of the temple which gave the ziggurat its cruciform shape, and which covered the ground about the ziggurat on all sides with the rooms, houses and corridors shown in the plans. These bricks are large, almost square, of rather rough work—in many cases pieces of pottery being used to fasten the clay together in place of straw.

The builder who erected this wall upon that of Meli-Shiha also added the wings or projections on all four sides of the ziggurat, and built over almost the entire ziggurat a new construction of unbaked brick, reducing at the same time the number of stages from three to two (Fig. 20). The rooms about the ziggurat were dovetailed into the new structure. At a later date the brick wall,

marked E on the plan, was built upon the remains of the wall of unbaked brick (D). This wall is of very late date, and composed, not of bricks made for the purpose, but of bricks taken from other constructions, so that the names of a large number of kings are found upon the bricks in this wall. Mr. Haynes suggests that at the time when this wall was built the ground about the ziggurat had been raised by the mud washed down from the surface to the point marked D, so that this wall was really built upon the surface

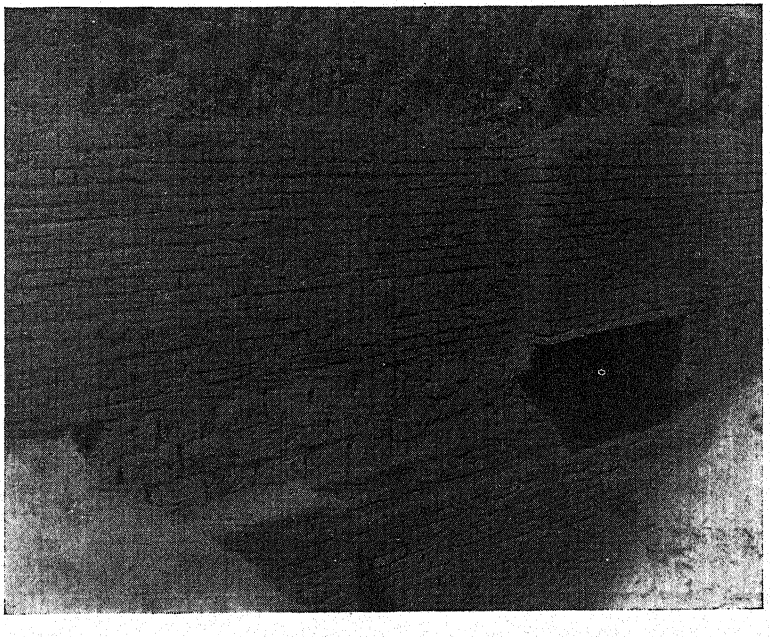


FIG. 20.—WALL OF ZIGGURAT, N. W. SIDE, SHOWING LATEST ADDITIONS.

at that time. This seems quite probable in view of the relation to this wall of the late structures built above the level of the houses on the plateau.

We have thus rapidly surveyed the history of the ziggurat in its reconstructions; but it must be added that other kings did work upon both the ziggurat and the temple, besides those who are responsible for the great reconstructions. An examination of two of the corners of the ziggurat showed that at some time they had been removed almost down to the bottom and afterwards built up again. The bricks of both Ur-Gur and Meli-Shiha were

originally laid in bitumen, but the bricks at the corners of the wall were laid in mud mortar (only those of Meli-Shihaand Ur-Gur having bitumen adhering to them) thus giving evidence that these corners had been removed for some purpose and then built up again. Among the bricks of other kings found in the ziggurat were those of Bur-Sin, Ishme-Dagan and Kurigalzu, and among those found elsewhere in the temple were bricks of Bur-Sin of Isin and Esarhaddon of Assyria, showing that many kings of many ages had honored the temple of Bel at Nippur. Only Nebuchadrezzar II of Babylon, the great builder of temples in other parts of Babylonia, is conspicuous by his absence.

And now, to go back to the ziggurat of Ur-Gur, it will be asked, "What was the object of the ziggurat?" "How was access had to its upper terraces?" and "Where, if at all, were sacrifices offered in connection with it?"

In answer to the first question, I would say that this particular temple of Bel, the Lord, whose proper name was En-Lil (Lord of the Storm), was itself known as E-Kur, or Mountain House. From a comparison of this ziggurat with others, in Assyria and Babylonia, with those described as existing in Southern Arabia, and with Jewish, Phœnician and Syrian temples, as we have them described in the Bible and other ancient sources, from a consideration of the traditions of mountain-worship existing among Semitic peoples, which we find so well illustrated in the Bible by the high places and also by the traditions regarding Sinai, Horeb and the like, and above all from a study of the description which Herodotos gives of the temple of Bel Merodach at Babylon, I have been led to suppose that ziggurats (the word seems to mean peak or high place) were nothing more than conventional mountains, and that the Deity was conceived of as inhabiting a Holy of Holies on the summit of these mountains, where he dwelt unseen, enshrined in darkness. Herodotus describes a chamber containing no image as existing on top of the ziggurat of Bel Merodach at Babylon.

There were found at the top of the ziggurat at Nippur large numbers of bricks which seem to have belonged to some structure, although no walls could be found in place. It will be remembered also that on the summit of the ziggurat of the temple

of Nebo, at Borsippa, there are great masses of brick. In the case of the ziggurat at Nippur, I am inclined to think that these bricks represent a chamber or shrine which once stood upon the summit of the ziggurat, like that described by Herodotus as existing on the top of the temple of Bel Merodach at Babylon.

In answer to the second question—"How were the upper stages of the ziggurat reached?"—we found, as stated, a causeway running from a point at about the outer great wall of the temple, southeast of the ziggurat, up to the ziggurat. It was impossible to determine whether the ascent on this causeway was by steps or by an inclined plane, although I suppose the latter to be the more probable. Access was had from the lower terrace to the upper terraces apparently by a continuation of this same causeway.

In answer to the question, "Where, if at all, were sacrifices offered in connection with the ziggurat?" I would say that beneath the platform of Ur-Gur, in front of the southeastern side of the ziggurat, between the causeway and the eastern corner, stood (as shown on Fig. 10) an altar. This altar was of unbaked brick some 13 feet in length. On this was a ring of bitumen seven inches in height, the surface within which was wholly covered with ashes; some of them bone ashes. To the southwest of this altar was a sort of bin or receptacle of crude brick, full of ashes to the depth of about a foot. This altar was apparently in use at the period of Sargon, although its foundations may have been more ancient. No altar was found at any other level, but I am inclined to reason from this altar to the position of the altar at all times, and suppose that sacrifices were offered at the foot of the ziggurat, on its southeastern side—just as in the temple of Yahweh at Jerusalem sacrifices were offered upon an altar which stood outside of and beneath the elevated or holy place on its eastern side. The Holy Place and the Holy of Holies in the temple at Jerusalem seem to me to correspond to the ziggurat and the chambers upon it in the temple of Bel at Nippur, in the sense that the temple at Jerusalem was a development from a ziggurat temple, like that of Bel at Nippur.

The notice of this altar which stood below the platform of Ur-Gur leads me, finally, to note the constructions found beneath the

Ur-Gur level. In front of this altar, at a distance of six feet from it, as already noted, ran a wall of most archaic construction, which also appeared under the western corner of the ziggurat, and which may at some time have been the boundary of an inner Holy Place—the court of the priests. In exploring at Mughair I thought that I found traces of a similar wall around the ziggurat of the temple of Sin at that place.

Beneath the platform of Ur-Gur, under the eastern corner of the ziggurat, was found a construction which, from the bricks composing it and about it, Mr. Haynes thinks to have dated from the time of Naram Sin, or his father Sargon. The walls, of admirable construction, were standing to the height of 11 feet, and the platform of Ur-Gur's ziggurat rested immediately upon these walls. The building of which these walls formed a part proved on examination to be a solid tower 23 feet square, but no ziggurat—unless, indeed, this were the lower stage of a ziggurat of very small dimensions. No traces were found of any ziggurat earlier than the time of Ur-Gur, unless the tower above referred to was, as suggested, a ziggurat of very small dimensions. Mr. Haynes raises the question whether Ur-Gur was the first builder of ziggurats in Babylonia, and calls attention to the fact that the earliest ziggurats known, those of Nippur, Erech and Ur, are all his workmanship. That there was from a much earlier time a temple at Nippur on the same site as in the days of Ur-Gur, and with the same name, is shown by the inscriptions of Sargon and Alu-Sharshid. The only question is as to the form of that temple.

Beneath the tower mentioned above Mr. Haynes found an arched drain, the arch of which he describes as "Roman," but no full description and no drawings or photographs of it have yet come to hand. He also found bricks laid in lime mortar. He also found at the same depth a great quantity of clay water-cocks (Fig. 21), which, as he points out, are identical with those manufactured and used as drinking-fountains in many parts of Turkey to-day. To get a drink one closes with the hand the small lower orifice, whereupon the water fills the cock, and one drinks with the mouth directly from the large upper orifice.

There were also found at this same level, and near to the square tower, some fragments of unbaked tablets, together with

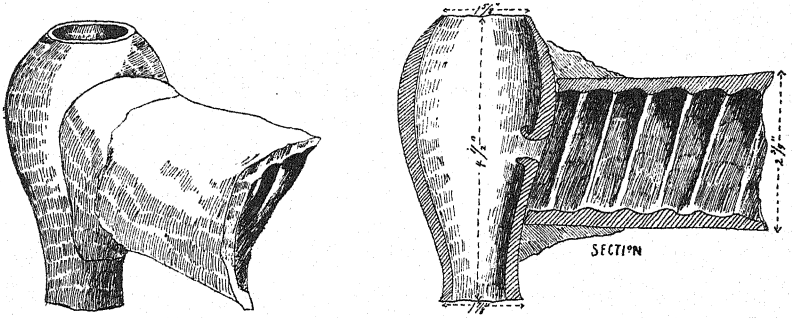


FIG. 21.—WATER VENT FORTY-FIVE FEET BELOW THE SURFACE S. E. OF THE ZIGGURAT.

pieces of clay prepared or being prepared to receive inscriptions, thus proving that as early as the time of Sargon (3800 B. C.), clay tablets were used for purposes of writing. (It may be said that the earliest dated tablet yet found anywhere, which was found at Nippur, is a tablet of Dungi, the son of Ur-Gur.) Fifteen feet lower than the level of the drain, the water-cocks, and so forth, but in the great trench (1 on the plan), and not under the ziggurat, Mr. Haynes also discovered a mortar of burned clay, a stone vase perforated with several holes, and a gutter of burned clay, meant to serve as a gargoyle to conduct water from the roof. The fragments of pottery and the bricks found at this and even lower levels were practically identical with those found at much higher levels, showing a homogeneity of civilization and culture throughout. In other words, from the stratum of the late Babylonian constructions down to a stratum twenty feet and more below the stratum of Sargon, we have everywhere the remains of a high and practically homogeneous civilization. Now, in view of the mass of accumulations beneath the Sargon level, if, with practically all Assyriologists, we accept for Sargon the date 3800 B. C., we must suppose the earliest constructions on the site of the temple of Bel at Nippur to have been erected as early as 6000 B. C., and perhaps even earlier, and that civilization in Babylonia had been carried to this high state at that very early date. (On geological grounds I have argued that the foundation of Ur and Eridu was between

6000 and 7000 B. C.) There is, according to the measurements given above, 20 feet of débris to be accounted for before the time of Sargon, and we can hardly assign for this a shorter period than 2000 years.

After Sargon's time the dating of the strata and the rate of accumulation seem to be satisfactory until we reach the stratum of Meli-Shiha. If he were Meli-Shikhu (1171–1157 B. C.), as at first supposed by Prof. Hilprecht, the general proportions of accumulation would be approximately correct; but if he be Ashurbanipal of Assyria (669–626 B. C.), as Prof. Hilprecht seems now to have proved him to be, then the accumulations between him and his immediate predecessors seem to have been abnormally slow, and those after his date as abnormally rapid. Whoever he was, he was one of the greatest of the builders of Nippur and the most artistic. He used burned bricks and glazed bricks freely, and some of the brick constructions embedded in the later masses of unburned brick presumably date from him. After his time came a great catastrophe. Everything except the ziggurat was razed and rebuilt, and even that was totally changed in appearance and built over, if not rebuilt. Who it was who thus rebuilt the temple we do not know, although on general grounds I have assigned this work to the neo-Babylonian period. It certainly cannot be later than that; and if Meli-Shiha were not Ashurbanipal, I might even have supposed it to be earlier. Whoever did the work was certainly a great builder, and the walls, terraces and the like of this reconstruction are really of astounding size and fine construction. Nebuchadrezzar is the only later monarch of whom I can think who would have been likely to have undertaken a work of such dimensions; but as he used burned bricks stamped with his own name more freely than any monarch of whom we know, the absence of such bricks from this construction seems to be proof positive that he was not the builder.

JOHN P. PETERS.

St. Michael's Church, New York,
March 6, 1895.

NECROLOGY.

BRUGSCH-PASHA. ✠

Henry Brugsch was born on the 12th of February, 1827, in Berlin. His father, a subaltern officer of the uhlans, who educated him in military discipline, sent him to the "Latin-school." At the age of twelve the boy was attracted by the Egyptian monuments of the royal collection (very insignificant at that time), and at the age of sixteen he published his first treatise on Egyptology, written in Latin (*De natura et indole linguae popularis*, etc.) This essay excited general interest because scholars had left the study of the demotic script of the ancient Egyptians almost untouched since Young and Champollion had made a few steps in its decipherment. Now a young student at the "gymnasium" had the courage to take it up. Alexander von Humboldt participated in the general interest, and that essay was printed at his expense. Humboldt continued to be the gracious patron of the talented but poor young scholar, and after Brugsch had left the university with the degree of doctor, he procured for him travelling scholarships which enabled him to visit all the museums of Egyptian antiquities, and, finally, Egypt itself, in 1853.

There Brugsch met Mariette, who had just opened the tombs of the apis-bulls. This period was mainly devoted to the same studies with which he had begun, and in 1855 he published, as a crowning work, his *Grammaire Démotique*. This book has been more admired than studied, because up to date demotic studies have, for good reasons, never been very popular. Brugsch seems to have felt this, for he began to turn his attention more and more to the hieroglyphic monuments. At that time, in Germany, certain men, such as Spohn, Seyffarth (who died in America some years ago) and Uhleman, had questioned the correctness of Champollion's system of deciphering, and, not giving a new system themselves, but disfiguring Champollion's results, they decried all his adherents and followers so successfully that, before 1860, Lepsius, almost the only German Champollionist, was at great disadvantage. Brugsch has done much to remove these perverting influences, beginning with his treatises (Latin and German, 1851), on the Rosetta stone. His second Egyptian

journey, in 1859, enabled him to do more in hieroglyphics. The *Monuments de l'Egypte* were the first fruit, but this work remained a fragment, like his *Histoire de l'Egypte*. Far more important were the *Géographie et Inscriptions* (1856–60), in which he took up quite a new kind of philological research.

In 1863 he had the extremely happy idea of founding a journal which should be devoted entirely to the promotion of Egyptological studies (the *Zeitschrift für ägyptische Sprache und Alterthumskunde*). The rapid progress of Egyptology is due especially to the existence of this organ, which, up to the present, has remained the centre especially of grammatical researches. It is characteristic that Brugsch, its bold founder, had to leave it in the hands of his rival, Lepsius, who, owing to his unusual resources, managed it successfully until 1884. After Lepsius' death it returned into the hands of Brugsch, who had given it up when he went to Cairo as Prussian consul. He remained only two years in this position. Of his different works from that time forward I will mention only his *Matériaux p. servir à la reconstruction du calendrier des anc. Egyptiens*, opening again a new field of research.

It was in 1867 that he had his greatest success, the professorship of Goettingen. This enabled him to begin his *magnum opus*, the *Hieroglyphic-Demotic Dictionary* (1868–82) in seven large volumes, all autographed by himself. But quiet Goettingen was not the place for him, and soon he took leave for five years to return to Egypt. The great boom of Ismail Pasha led to the establishment of an Egyptological school for young Egyptians, but this met the fate of most foundations of Ismail. Brugsch, who wrote for it one of his least scientific but most useful books, the *Hieroglyphic Grammar* (1870, French and German,) suffered financial and scientific disappointment. He mentioned to me some very elementary subjects in which he had to give instruction, instead of hieroglyphics. But he found time to write several works, among which his *Dictionnaire Géographique* (1879–89) holds the most important place. In 1876 he represented Egypt at the Centennial Exposition of Philadelphia, having done so before at Vienna. What he hoped for was the place of his best personal friend, A. Mariette, the director of the Egyptian excavations. But when Mariette died, in 1881, the promises given to Brugsch were not kept, and this desirable position was given to Maspero, as a countryman of Mariette. Maspero on leaving it secured this position for his students. Poor Brugsch returned to Germany. In 1884 he entertained the hope, after the death of Lepsius, of succeeding to his positions. But to the government Brugsch was not a *persona grata*, and he was disappointed in a most cruel manner. Twenty years

before (in 1860) he had done a great service to his government by taking the leadership of an embassy to Persia when it was threatened with shipwreck, and had led it most successfully. Now he was charged with a similar mission to Persia. When he returned he found both positions of Lepsius, the professorship and the directorship of the Berlin Museum, occupied. He retired to Charlottenburg, near Berlin, in possession of several fine titles (Pasha, Legationsrath, Professor), but in an unsatisfactory condition, especially financially, owing to his large family. I can testify that he felt very strongly the constraint which forced him to lecture and to write for the sake of money. He deserves our pardon for having written during this period some Egyptological books which betray that they are not written in a purely scientific interest (*e. g.*, his *Sieben Jahre der Hungersnoth*). For many years he had been a most unselfish writer, guided only by love of his science. His immense work, the *Thesaurus Inscriptionum* (1884–91), his work on the religion and mythology of the ancient Egyptians (1888), in which he again opened up a new field, his *Egyptology* (1889), very much dependent on Erman's *Aegypten*, are the better works of that last period. To give some relief to him the government sent him repeatedly to Egypt to study, to excavate and buy for the museum.

To give an impartial judgment of his scientific life, and to differ somewhat from the usual panegyrical style of necrologists, it must be confessed that he was undoubtedly lacking in strict philological method. I believe his earliest period must be made responsible for this. He began as a youthful prodigy, and from the journals of the period one can see how much the young doctor was admired and spoiled. This led him to neglect the philological drill in other disciplines which would have enabled him to systematize a young science. He confessed to me in 1885: "I never had any interest in philological hair-splitting; the only thing that gave me pleasure was reading and deciphering." This weakness is most painful in his Demotic Grammar, even more than in the Hieroglyphic Grammar and in his many philological essays. That lack of philological training explains also why such a gifted draughtsman, whose handwriting, both modern and hieroglyphic, was a marvel of beauty, published in his earlier period such wretched copies of inscriptions. Especially in his demotic facsimiles (and even in his *Thesaurus* of 1890) he would "correct" any word or sign unintelligible to him. Above all, I think he was weak as a historian, as is shown in his History of Egypt (1875, also in English). He never touched upon art and archæology. But his geniality and productivity were so enormous that he has furthered his science far more than any other scholar since Champollion. I

have enumerated only a fraction of his books, and none of his many essays. Everywhere he has worked as a pioneer, everywhere science owes so many thanks to him that his merits outweigh his blunders, however many and serious they are. His dictionary is a book which ought not to be put into the hand of a non-Egyptologist, but the specialist finds in its immense collections of material an invaluable treasure. It is easy to discover a goodly percentage of blunders on each page, to smile at his poor use of Coptic, at the unscientific comparisons with other languages (even the Aryan), but if Brugsch had not had such courage and stupendous energy in 1868 should we have such a dictionary at all, even now in 1894? The same can be said of many other works, although each one ought to be marked "to be used with caution." Some writings deserve much praise for their popularizing power. The most entertainiug of them is his late autobiography. Brugsch might have been extremely useful as an academic teacher. Anyone who has felt the magic power of his personality will admit that no better man could be found to attract and to interest students and to fill them with that glowing love of his science which made him work up to the last moment. This unselfish zeal manifested itself in the sacrifices of time and work for every young student to whom he could be useful, even during the last years of complete hopelessness and of cares. As I have been among these, and owe him several debts of gratitude, I refrain from the unpleasant discussion why a man with such wonderful gifts, also in social respects, had such a sad life, full of failures. Some people ascribe it to his having assumed some Oriental ways of thinking and living. It was rather a strange unrest which also caused this most amiable, gentlemanlike person (the chaperon of a dozen princes because of these uncommon qualities) to begin several unprovoked literary quarrels with scholars of merit (*e. g.* with Chabas). Possibly future ages will blame Brugsch's contemporaries for not having overlooked these personal blemishes. So much is certain, for love of science and industry his name will always remain a shining example.

PHILADELPHIA. W. MAX MÜLLER.

CORRESPONDENCE.

NOTE TO "A TORSO FROM DAPHNE."

To the Editor of the Journal of Archæology:

DEAR SIR.—I find that the torso published by me in the AMERICAN JOURNAL OF ARCHÆOLOGY (vol. ix, pp. 53 ff.), had not been catalogued in the *Deltion*, but had been noticed by Milchhöfer in his *Antikenbericht aus Attika* in the *Mittheilungen*, XIII (1888), p. 345, as lying in Chaidari, as far back as 1887. It is singular enough that in the summer of 1892 it was brought into the Central Museum and reported as one of several things excavated during the summer.

RUFUS B. RICHARDSON.

Athens, Feb. 11, 1895.

26566

REVIEWS AND NOTICES OF BOOKS.

W. Fröhner. *La Collection Tyszkiewicz. Choix de Monuments Antiques avec texte explicatif.* 4to. Verlagsanstalt f. Kunst und Wissenschaft. Munich.

The famous collection of Count Tyszkiewicz, in Rome, is being published in excellent style, the text by Fröhner, the plates by the Verlagsanstalt für Kunst und Wissenschaft in Munich. Three of the *livraisons* have already reached us.

The collection represents a catholic taste in ancient art. Egyptian, Phœnician, Etruscan, Greek, Roman and Byzantine objects are represented. Marble and bronze sculpture, vases, jewelry, engraved gems and inscriptions find a place here. Many of these are of extremely fine quality, and it is a satisfaction to have them published with such excellent plates. Of the vases especially noteworthy is a very delicate *kylix* with brown figures outlined upon a white ground, representing the Flight of Nephele. The extreme rarity of this class of vases and the unique subject give this an unusual value. Unfortunately the artist's signature is incomplete. The Greek bronzes extend over a wide period. A bust of Aphrodite is attributed by Fröhner to the age of Homer, though we are inclined to put it not earlier than the VII century. An archaic Jupiter also represents the VII century; a head of Apollon the VI; a fine statuette of Venus and another of Apollon the IV; a Bacchus in repose, the Hellenistic period; an excellent head of Mars, the time of Augustus. A fine mirror-cover of bronze, representing Eros upon a dolphin, is an extremely effective work of the IV century, and valuable for comparison with terracottas of the same period.

Fröhner's text is helpful and in general accurate. We should not, however, describe as Hittite the Mycenæan gem upon Plate I, and to our eye the finely engraved and striking gem, No. 12 on Plate XXIV, in which Fröhner sees a portrait of an ancient Mesopotamian king, has a strikingly modern appearance. A. M.

H. STUART JONES. *Select Passages from Ancient Writers illustrative of the History of Greek Sculpture.* 8vo, pp. XL–231. Price, $2.25. Macmillan & Co., 66 Fifth avenue, New York. 1895.

This volume is especially designed to aid students of the Classical School at Oxford, who are required to present for examination the subject of Greek sculpture; but it has a wider function in presenting in accessible form to English readers passages from ancient writers illustrative of the history of Greek sculpture. It does not aim to supply the place of Overbeck's *Antiken Schriftquellen* as a work of reference, since only two hundred and seventy-one passages are given, instead of the twenty-four hundred quoted by Overbeck. The principle of selection has been to present such passages as contain information of a descriptive character. These references and descriptions afford, therefore, a running commentary from ancient sources upon the history of Greek sculpture. They have been judiciously selected and well arranged, as the table of contents will show. Some passages not given by Overbeck are also published.

That such a volume will aid the student at Oxford to prepare for his examinations is evident, for together with the passages from the ancient authors is given a translation and brief but excellent notes. The translation into English of these passages is, we trust, a work of supererogation, if the work be designed chiefly for the benefit of the Oxford classical student. But to the general public it will certainly be a convenience to have in English this selection of classic references to Greek sculpture. A. M.

SCHREIBER. *Atlas of Classical Antiquities.* Edited for English use by Prof. W. C. F. ANDERSON, Firth College, Sheffield, with a Preface by Prof. Percy Gardner. Price, $6.50. Macmillan & Co., 66 Fifth Ave., New York.

We are glad to see the growing tendency amongst English classical scholars, when translating foreign books, to make of them improved editions more serviceable to the student. Such is eminently the case with the present English edition of Schreiber's *Kulturhistorischer Bilderatlas.* That volume consists of one hundred engraved plates, each containing a number of illustrations. These are arranged topically and comprehend such subjects as the drama, music, technical methods of sculpture and painting and architecture, religion, athletics, war, ships, cities, arts and crafts, *etc.* In a few pages of introductory matter Schreiber had four brief bibliographical references and gathered together in a very condensed form a classified table of contents. The

English edition should be more useful to the student, not only because it contains an enlarged text, but because the bibliographical references are far more abundant and practical. Prof. Anderson has treated this series of illustrations as if it were a museum collection, each object of which is figured and described. This essentially changes the point of view of the book. Schreiber refers to general treatises to which his plates will serve as illustration; Anderson presents the plates as the starting point and the text as illustrative material. Thus the English edition may be regarded as a convert from the philological and literary to the archæological point of view. A. M.

DEHLI and CHAMBERLIN. *Norman Monuments of Palermo and Environs.* A study by Arne Dehli, architect, author of "St. Mark's and Venice" and "Ravenna," assisted by G. Howard Chamberlin, architect. Folio, pp. XVIII–30: with 12 heliotype, 10 photo-grain, and 50 outline plates. Boston, Ticknor & Co., 1894.

This book is welcome both in itself and as an encouraging sign that our American architects are in some cases becoming aware of the importance in modern practice of consulting and understanding the past. It will not appeal in the least either to the majority who simply pillage the past without caring how they mix and combine discordant styles in their adaptations, or the other school that is settling down into the narrow groove of classicism, and outside of it sees no good thing. Mr. Dehli has the excellent taste to admire the wonderful interiors of the Sicilian churches built by the Norman kings, and even goes so far as to believe them unsurpassed in their rich and harmonious unity. There are other books describing more in detail the architecture of these churches, and there are sumptuous publications reproducing their incomparable series of figured mosaics so important for Christian art and iconography, but nowhere do we find such plates as in this book, giving numerous details of the mosaic pavements and wall dados and friezes, the designs of columns, choir screens, *etc.* Such details are of great value for the designer and decorator as well as for the historian. A similar service has been rendered for the Byzantine work at Ravenna and at St. Mark's in Venice by Mr. Dehli himself in his series of plates recently issued in Germany—though the title is the only German thing about them: *Architektonische und Ornamentale Details in Byzantinischen Style in Italien.*

While these outline plates are of especial interest to the practical student, the other plates are of greater help to the æsthetic student. But these are very unequal in character. The heliotypes are good,

and give a better idea of the beauties of Monreale—especially the interiors in the choir and transepts—than any plates yet published; but the so-called "photo-grains" are simply atrocious and murder their subjects.

The text has both good and bad points. One cannot expect an architect to have the time to make himself the historian of the period the art of which he is illustrating, so that it would be wrong to be hypercritical. Mr. Dehli, in his introduction, makes a profession of faith in regard to his attitude toward the historic study of architecture. He takes an independent view of the development of Mediæval Architecture and kicks over received nomenclatures. He especially protests against the two categories of "Early Christian," which he also calls classic Romanesque (why?) and "Byzantine." His reason is that he finds Byzantine detail as prevalent throughout Italy (and even Rome) as in the Orient. He does not think that it would be so universal were it not a child of Italian soil. He would have no difficulty, however, in accepting its Byzantine origin were he aware of the complete supremacy of Byzantium in Italy during those centuries —a fact not generally realized.

Mr. Dehli has a short chapter on the history of Sicily, which is full of errors, some of which affect his understanding of the development of art. Belisarius conquered the island for Byzantium under Justinian, not under Julian. The Arabs took Palermo in 835, not 831, and for some time after possessed but a small part of the country about this city, not capturing Syracuse until 877. One cannot understand such a statement as this, that "the Byzantine period, like the succeeding Arab, has left no architectural monuments in Sicily, and, I think, no reliable record of any." There are plenty of records, if Mr. Dehli had taken the trouble to read them. Nor is there such obscurity regarding the fate of the Byzantine population as he imagines. There are plenty of proofs that it was concentrated especially in the Val di Demena, the Val di Noto and at Messina, where there were no Mussulmans, and also that a heavy emigration took place to the mainland, especially to Calabria, which was thus helped to become entirely Greek. We know also that they enjoyed freedom of worship.

When the Normans conquered Sicily the population was Arab or Byzantine, with a slight admixture of Lombards and Jews. Mr. Dehli does not appear to recognize sufficiently the intervention of the Arabs in the erection of the buildings of the Normans. The pointed arches universally employed, the stalactite decoration, the Eastern decorative painting of the church ceilings, the Egyptian designs in the decorative mosaics, all go to show that the native Arab artists and others imported from Egypt were largely responsible for the erection and

decoration of the Norman churches and palaces. This was but natural in view of the magnificent artistic development that had been going on among the Mohammedans, both in Sicily and in Egypt, for over a century. When Palermo was taken in 1072 by the Normans, it is said that Duke Robert, having gone up to the top of the citadel, gazed at the immense palaces of the Saracens, among which the Church of the Virgin was hardly visible with its oven-shaped dome. This church, the former Byzantine cathedral, had been turned into a mosque, but now the archbishop, who had been transferred by the Mohammedans to the small church of St. Cyriacus, was brought back to the cathedral. It is probable that such buildings as this Byzantine cathedral served as models for the domes of the Norman churches, which are precisely of this oven-shaped form. In almost all the Sicilian churches of basilical form, the transept and apse are built on Byzantine model, and the nave and aisles combine the Mohammedan and basilical forms.

The Norman conquest was not as casual a matter as Mr. Dehli states—by taking a hand in a quarrel between two Arab sheiks (he means *emirs*). Nor was it unsuccessful until a final expedition in 1090, for the Normans never left the island after 1061, and substantially subdued it as early as 1072, when they captured Palermo. When Mr. Dehli states that we know very little of the Norman period outside of dates and official history—often unreliable at that—it seems as if he were giving a wrong impression. The material may not be very accessible, but it exists, and most plentifully, as would be patent to every one had Mr. Freeman been able to finish his history of Sicily under the Normans. A. L. FROTHINGHAM, JR.

Le Gallerie Nazionali Italiane. Notizie. Documenti. Anno 1. Per cura del Ministero della Pubblica Istruzione. In-4o. Roma, 1894. pp. VI–224.

The Ministry of Public Instruction has begun the publication of the magnificent annual entitled "Le Galerie Nazionali Italiane." The first year was published at the close of 1894, under the general editorship of Professor Adolfo Venturi. The object of this publication is to announce the most recent acquisitions of the various galleries and museums of Italy, to note the reorganization of the collections, the reattribution of special works and to publish a catalogue of those collections which come under the law of the Fidecommisso, about which there have been so much litigation. This last work involves very careful research, in order to discriminate between the works in private hands which are the private property of the owners and those which belong

to the public domain. This is especially important in the case of the Roman galleries, as was shown in connection with the collection of Prince Sciarra. Finally, this publication will contribute new documents for the history of art.

This first volume contains the following articles: (1) The Brera gallery in Milan with an account of two recently acquired paintings by Francesco del Cossa, both of which are reproduced in fine phototype plates; they represent single figures of John the Baptist and St. Peter and belong to the Ferrarese period of the master. The third acquisition is that of the Virgin and Child with saints by Galeazzo Campi of Cremona, dated 1517. A report is also made upon the paintings belonging to the gallery, which at various times had been loaned by it to different churches throughout Lombardy, which stood in need of decoration. Among a good deal of rubbish there are quite a number of important paintings, among which is one by Iacopo Bellini, dated 1453, and others by Vivarini, Cima, Palmezzano, Timoteo Vite, Francia, Garofalo, etc. (2) The second article, on the gallery of Parma, is devoted almost entirely to an historical account, by its present director Corrado Ricci, of the history and acquisitions of this gallery, of the different attempts at arranging it and of the new arrangement by which for the first time the gallery has received a rational order. The director gives quite a full study of the various painters of the school of Parma, reaching out far beyond the limits of the gallery itself and noting where it is especially deficient. The restorations and improvements made throughout the city are also noted and a number of fine phototype plates illustrate the paper; namely: A Virgin and Child with Saints by Caselli, the Madonna della Scodella by Correggio, the St. Catherine among the doctors by Araldi and the Immaculate Conception by Mazzola. (3) The next article is on the gallery and collection of coins in Modena. This gallery also has been rearranged under the direction of Professor Venturi, with the assistance of the director of the gallery, Cantalamessa. The first hall contains only works of the school of Ferrara, the artistic leader of the province. The second hall is devoted to the schools derived from it or cognate to it, including Modena, Parma, Bologna, etc. The third hall contains all other schools of the fifteenth and sixteenth centuries. Two plates are given illustrating the Virgin and Child by Correggio and Christ bearing the cross by Solario, recent gifts of Marquis Campori. A number of other paintings have been added to the gallery; the most important being, one by Agnolo degli Erri, who belonged to a family of painters of Modena in the fifteenth century. In order to collect in the same locality all the objects of antiquity and of art that illustrate the artistic activity of the province, the ministry of public instruction decreed the

junction with the gallery of the collection of medals, coins, ivories, bronzes, cameos and other antiquities, which had hitherto lain in the museum of the city library. Five phototype plates illustrate this part of the collection; two of them bronze vases with elaborate decoration in relief by the famous Renaissance sculptor Andrea Briosco called Il Riccio. The third plate reproduces an important Italo-Byzantine ivory carving of the close of the twelfth century. The two final plates give inedited Renaissance medals, of which a careful description is to be found in the text. The small collection of antiquities had until recently been entirely hidden from the public and packed in cases. It has now been placed on exhibition and a synopsis of its contents is given in this paper. (4) The next paper is on the Archæological Museum of Venice. It commences by a description of inedited medals and it is illustrated by a plate of a work in high relief by Andrea Riccio and a bust of the fifteenth century—perhaps that of Doge Leonardo Loredano—both in bronze. An article on the Florence galleries is merely a catalogue of the additions that have been made to them, either by gift or purchase, commencing with the gifts of Dr. Arthur de Noe Walker. A plate is given of the most important of these, a figure of Venus by Lorenzo de Credi. Of a different character is the report on Roman galleries that come under the Fidecommisso law. The ministry of public instruction confided the task of drawing up a catalogue of the paintings in these different collections to Cav. Giulio Cantalamessa. He announced in this brief report that he has presented to the ministry the volumes of these descriptive catalogues of the galleries, together with detailed reports upon each one of them, and the present paper is a summary report giving a synopsis of the work done, of the methods employed, of the difficulties met with and all the circumstances connected with a task of such delicacy and difficulty. Especial reference is made to the Borghese, the Sciarra, the Doria-Pamphili, the Spada, the Baberini, the Colonna and the Rospigliosi collections. The second part of the paper is devoted to a short report upon the ancient sculptures in the possession of Roman collectors, coming under the same law. It was made by Dr. Mariani and in its descriptive portions was made comparatively easy by full catalogues of ancient sculpture in Rome, which have been already published. The only difficulty met with was in carefully distinguishing between the objects that were private property and those that were the property of the nation. The final article is upon Civic Italian Museums. This consists merely of a report from the inspector of Pisan monuments (Supino) upon the Civic Museum recently established by citizen vote in Pisa, with the object of securing a better exhibition of many works of art existing in the city. The collection has been located in the monastery of St. Francis.

It is especially important for Mediæval art, and contains many illuminated manuscripts, enamels, pieces of gold and silver work, Byzantine and Gothic embroideries, ivory carvings, especially a coffer of Italico-Byzantine style of the X century. The second hall contains a chronological exhibit of paintings beginning with the Byzantine, Pisan and Lucchese schools, including those by Giunta and the Berlinghieri, examples of the Sienese and Florentine schools with Simone di Martino and the followers of Giotto. One of the remote successors of Giunta represented by a dated painting is Giovanni di Nicola. Among the works of the Sienese school, is one dated 1356 by Luca Tome. One of the most important of the paintings is a signed work by Barnaba of Modena, representing the Virgin and Child. The Florentine school of the XIV and XV centuries is very well represented. The fragments of the pulpit which was executed by Giovanni Pisano for the Cathedral, are being put together in the museum.

The volume closes with a specimen of the original documents, the publication of which will be one of the features of this new Annual. The document in this case is a book of accounts (Libro dei Conti) of the Venetian painter Lorenzo Lotto, whose life and work have been brought prominently before the public of late, especially by the writings of one of our American critics, Bernhard Berenson. In a brief introduction to the document itself, Professor Venturi calls attention to the interesting facts in regard to the life and work of the artist that are brought out in the text. It gives us quite an intimate glimpse of his character, of his friends and of his family, and allows us to keep him company in his many journeys, in his many contracts, and to follow the vicissitudes of his financial condition. His diary is a proof of his extraordinary activity and of the abundance of the works with which he decorated five provinces of Italy: Venice, Treviso, Bergamo, Ancona and Macerata. The catalogue of these works, drawn up from his register, extends from the year 1538 to the year 1554.

A. L. FROTHINGHAM, Jr.

WILHELM BODE. *Denkmäler der Renaissance Sculptur Toscanas.* Verlagsanstalt für Kunst und Wissenschaft. München.

We take pleasure in recommending to the attention of our readers this important publication. The enterprising publishers, who have already won the gratitude of the art-loving world by their magnificent publications, here accomplish for Tuscan Renaissance sculpture of the XV and XVI centuries the same service which they have done for Greek and Roman sculpture in the publication of Brunn's Denkmäler. The work is now coming out in parts, containing phototype

plates in folio and text in quarto. The plates are generally excellent, being made from clear negatives and well printed; and the text by Dr. Bode is comprehensive, condensed and well adapted to its purpose. This work, in spite of its expensive character, should find its way into all important libraries where the history of art is cultivated, for it is only from such comprehensive corpuses of photographic reproductions that the history of sculpture can be conveniently studied.

Whether publications of this character are thoroughly adapted to the financial capabilities of the art-loving public, the publishers doubtless know by the measure of success with which their enterprises have been greeted. We should imagine, however, that the general public is now sufficiently educated and interested in the history of art to demand even more comprehensive corpuses of smaller illustrations at less cost. A. M.

Il Codice Atlantico di Leonardo da Vinci, nella Biblioteca Ambrosiana di Milano. Riprodotto e Pubblicato dalla Regia Accademia dei Lincei sotto gli auspici e col sussidio DEL RE E DEL GOVERNO. Milano, ULRICO HOEPLI, Editore Librajo della Real Casa e della R. Accademia dei Lincei.

The success which has attended the various publications of Leonardo di Vinci's drawings has led the Italian Ministry of Public Instruction to undertake the publication of the entire series of 1750 drawings contained in the 800 large sheets forming his famous *Codex Atlanticus*. The history of this volume is quite dramatic. On the dispersal of the collection of the drawings of Leonardo, the bulk of them was acquired by Pompeo Leoni, who, towards 1587, dismembered the collection in order to compose this volume, which from its size received the name of Atlanticus. In doing so he paid no attention to the original order, but followed a purely arbitrary arrangement. By the gift of Count Arconati the volume passed in 1637 into the Ambrosian Library, from which it was absent only in a temporary and forced residence in France between 1796 and 1815. It has formed the basis of many studies and yet has not been in the least exhausted as a mine of study. As early as 1872 a fragment or "Saggio" of its pages was published in facsimile, in order to test the question of a complete edition in large phototype plates, such as has now been undertaken. The editing of the work has been undertaken by the Royal Academy dei Lincei. The work will be published in thirty-five parts, each containing forty heliotype plates, at a cost to original subscribers of £48 or $240. For foreign and tardy subscribers the price will be somewhat more. It was decided that it would be out of the question to attempt a systematic rearrangement of the drawings, so that they

will be published in their present order. The manuscript notes on the drawings are difficult to decipher, are often obscure in meaning, and at times impossible to translate. No translation of them will therefore be attempted; but beside the phototype reproduction, they will be given in an exact transcription; and in order to facilitate their study, a special dictionary will be compiled of words that are obsolete or of doubtful meaning and their equivalent in modern Italian given. The transcription is to be by Dr. Giovanni Piumati; the dictionary by Luca Beltrami.

Some idea of the scope of the work may be obtained from the following statement in the introduction: "In the Codex Atlanticus his marvellous genius asserts itself in the full variety of its manifestations: in military art, with numerous drawings of mortars, among which the important suggestion of rifled ordnance; with various studies on fortifications, and with sketches of warships, including the interesting hint at propulsion by steam power; in astronomy, with observations on the movement of the earth; in physics, with notes on gravity, equilibrium, light, acoustics, flight and other natural phenomena; in hydraulics, with drawings of a number of water-engines and navigable canals; in geometry, with studies for the measurement of the area of the earth, and with the sketches of geometric figures which were destined to enhance the value of Luca Pacioli's treaty, *De Divina Proportione;* in mechanics, with drawings of tools and engines of every description for sawing marble, wood, *etc.;* in industrial work, with indications of the process of pavement making and lock manufacture, of weaving and bronze casting; in architecture, with numerous drafts and plans for churches and other buildings, cupolas and monuments; in painting, with sketches on perspective and notes on painting in general. And if the Codex does not seem to be as wealthy in notes and drawings in art as in science, yet the outlines of the paintings of 'The Adoration' and of 'St. John,' the sketches for the equestrian statue of Francis Sforza, and the studies for Leda and for the celebrated portrait of Beatrice of Este, are not less important for the history and study of Leonardo's pictorial and sculptorial creations. Even traces to reassert his fame as a poet are not wanting in Leonardo's Codex Atlanticus."

The sole agent for the United States is Gustav E. Stechert, 810 Broadway, New York. A. M.

ALOIS RIEGL. *Stilfragen. Grundlegungen zu einer Geschichte der Ornamentik.* 8vo, pp. XIX–346, with 197 illustrations. Verlag von Georg Siemens. Berlin, 1893.

This book is a consideration of the foundation of ornament, and is based chiefly upon ancient historic art. For eighteen years Herr

Riegl was in charge of the textile department of the Royal Austrian Museum for Art and Industry. He was naturally led to give special consideration to Semper's theory of the origin of ornamental forms in textile fabrics. The first portion of his work, which treats of the geometric style, is written in opposition to Semper's theory. According to Riegl, the existence of elementary geometric forms in widely separated countries does not necessarily apply intercommunication. He therefore favors the theory of separate origins. Nor does he think it necessary to assume that such forms arise in general from the art of weaving, since they are found amongst races who were presumably unacquainted with weaving and lived without clothing. He places the origin of such forms in the natural love for decoration, without special reference to material. He next considers what is known as the Coat-of-Arms Style—*Wappenstil.* This he disassociates from the art of weaving and connects psychologically with the love of symmetry. The greater portion of the book is taken up with a consideration of early floral ornamentation and the development of honeysuckle ornament. This he traces to its earliest origin in Egypt and follows it through Mesopotamia, Phœnicia, Persia, Greece and Rome, and in derivative forms in Byzantine and early Saracenic art. In this portion of his book he comes into close quarters with Professor Goodyear, whose important work upon the Grammar of the Lotus has great weight with him, although he differs from Professor Goodyear in a number of details. The vine or honeysuckle ornament he considers a creation of Greek art, although admitting its element to be of Oriental origin. It is interesting to have thus clearly portrayed in a logical and historical treatise the life of an ornamental form which originated in the remotest antiquity, became widely diffused in mediæval times, and which survives in much of the decoration of the present day.

A. M.

SOLONE AMBROSOLI. *Manuale di Numismatica.* 16mo., pp. XV, 250, with 120 illustrations in the text and 4 plates. Ulrico Hoepli, Milano, 1895.

A year ago the distinguished numismatist, Dr. Ambrosoli, published his manual of numismatics in the series of the manuals issued by Ulrico Hoepli, at Milan. The edition was soon exhausted, and the little volume before us represents a second edition, in which corrections and additions have been embodied. The book deserves a wide circulation, since it contains in very compact form a large amount of useful material upon the entire field of numismatics. After giving definitions and general notions he surveys the field for Greek, Roman, Byzantine, Mediæval and modern numismatics, adding

a chapter upon medals. In each of these chapters he gives a special introduction, many bibliographical references and a few half-tone representations of coins. More valuable still for purposes of reference are the tables appended to his chapters, which afford a means of ready reference for the identification of coins by their inscriptions. The book contains naturally most abundant information upon Greek, Roman and Italian coinage, though references are given by means of which the subject may be extended not only through Europe, but also to Asia and North and South America. It would be difficult to find a manual containing so much information in so small compass; nevertheless, the publishers offer the volume at the extremely low price of 1.50 lire. A. M.

CHARLES DIEHL. *L'Art Byzantin dans l'Italie meridionale.* (Bibliothèque internationale de l'art.) 8vo. pp. 267. Paris, 1894, Librairie de l'Art.

The present volume is the result of two journeys undertaken during 1883 and 1884 in Southern Italy in the provinces of Terra d'Otranto, Basilicata, Calabria and Sicily, with the object of studying the influence of Byzantium upon the Italian art of the South. Several of its chapters have appeared in part in reviews: in the *Mélanges de l'Ecole française de Rome*, in the *Bulletin de Correspondance Hellénique* and in *l'Art*. M. Diehl has made a specialty of Byzantine studies, and other works of his have become standard authorities. Such are his studies on Byzantine administration in the exarchate of Ravenna, on Byzantine administration in Africa, on the church and mosaics of St. Luke in Phokis. He has mastered to an unusual degree two distinct branches of Byzantine studies—the historic and the inconographic—and these stand him in good stead in his present work.

Some of the frescoes which are described in this book, and form the principal material for the author's judgment, have been described in previous works, such as Salazaro, Schultz and Lenormant, but by far the greater part are either his own discovery or have been noted merely by local antiquarians, whose criticisms have remained unnoticed or are of but little value. Aside from the great frescoes of St. Angelo in Formis and the mosaics of Sicily, the paintings described exist either in small churches and chapels or in subterranean crypts and hermit grottoes of modest pretentions. These works are studied in geographical groups: the first is that of Terra d'Otranto with its grottoes and subterranean chapels; the second group is that of the region about Tarentum; the third is that of Matera, and the fourth comprises Calabria. In chapter IV is a very interesting treatise on the

origin and artistic character of the Italo-Byzantine frescoes of the entire South; in it he gives a summary of the results of his study of all these groups of frescoes. He shows that although modest in their pretentions, they are of great importance for the history of Byzantine painting, because they are about the only untouched examples of this branch of Byzantine art that have remained from the Middle Ages. The series extends from the tenth to the thirteenth centuries in an unbroken succession, and reflects all the changes which Byzantine art in general underwent during this period. M. Diehl gives a remarkable lucid example of this in his essay upon the changes in the type of Christ. One of the most interesting points that he treats is the relation of the native art to the Byzantine school. He shows how at first the Byzantine school was almost in sole possession of the field, how gradually there grew up by its side a native school largely in imitation and how this native school developing during the thirteenth century replaced the Byzantine during the course of the fourteenth, but in many cases retained characteristics of its former master, largely on account of the persistence in Southern Italy of a population that was still Greek in its church rites, its language and all its affiliations and sentiments.

The chapter on the Byzantine mosaics of Sicily is a prose poem and the most fascinating part of the book. As a prelude we have a study of the cosmopolitan civilization of Sicily under the Normans. "For about a century—the only one of mark in its history—Palermo showed to the world a unique and wonderful sight: under the influence of a foreign dynasty, that of the Norman princes, who were in reality the national house of Sicily, it produced a refined civilization, an original and charming art, which was in its time, the first in the world, an art fascinating above all, which combined and fused three apparently irreconcilable elements, the Byzantine world, the Arab world, and the Latin world, which by the chances of conquest had been placed side by side in the land of Sicily, and out of them made the most extraordinary and attractive *mêlange* that ever was." M. Diehl passes in review the acts and policy of each of the Norman kings, Roger I, Roger II, William I and William II: he shows what wonderful skill was shown by these rulers in holding the balance between the discordant elements that made up their population—Latin Catholics, Greek church, Mussulman: a spark would kindle a conflagration.

A. L. F., Jr.

ARCHÆOLOGICAL NEWS.

Summary of recent Discoveries and Investigations.

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AFRICA.

EGYPT.

EGYPT EXPLORATION FUND.—The eighth ordinary general meeting of the Egypt Exploration Fund was held in London on October 26, the President, Sir John Fowler, being in the chair. The financial report for 1893–4 was read by the honorary Treasurer, Mr. H. A. Grueber. First dealing with the accounts of the Exploration Fund as apart from those of the Archæological Survey (for which latter separate subscription has always been asked), Mr. Grueber pointed out that the expenditure for the year 1893–4 had been about £2,415, and that this sum included the large outlay involved by the excavation of the temple of Deir el Bahari (the expenses under this item being the heaviest ever incurred by the fund), the cost of publications and the ordinary and extraordinary office expenses. Since the total receipts for the same period had only amounted to some £1,773, owing to the falling off of subscriptions from England, America and abroad—but more especially from America—the expenditure for the year had exceeded the receipts by over £600. The receipts of the Archæological Survey during this year had been about £681, and its expenses the same, one satisfactory item of expenditure having been the payment of an installment of £104 towards the debt of £700 incurred by the survey to the Exploration Fund proper during the year 1892–3. Mr. Grueber earnestly appealed for increased public support; for, since the committee had found it impolitic to delay the clearing of the temple of Deir el Bahari, the expenses of the forthcoming season must of necessity be as great, if not greater, than those of 1893–4.

The statement of the honorary Secretary, Prof. R. S. Poole, announced the publication of an introductory volume on Deir el Bahari, being the Exploration memoir for 1892–3; "El Bersheh I.," being the third memoir of the Archæological Survey of the Egypt Exploration Fund, and issued to the subscribers for 1892–3; and of the *Archæological Report* for 1893–4. Advanced copies of the three publications were placed on the table. The *Archæological Report* not only contains brief accounts of the society's own excavations, and of all others made in Egypt during the season of 1893–4, but also an editorial report by Mr. Griffith on the general progress of Egyptological research, together with papers by Mr. Cecil Smith on "Græco-Egyptian Antiquities," by Mr. F. G. Kenyon on "Græco-Egyptian Literary Discoveries," and by Mr. W. E. Crum on "Coptic Studies." Each article has its bibliographical appendix, and the *Report* contains maps, illustrations and a plan of the temple of Deir el Bahari. Representative series of negatives of photographs taken in connection with the work of the society are now being made at the London office, so that any one wishing to purchase such photographs on lantern slides may there make his own selection.

Mr. Ed. Naville, the director of the excavations at the temple of Deir el Bahari, gave a brief summary of his work there. Mr. D. G. Hogarth addressed the meeting about the temple of Deir el Bahari, answering the various criticisms made against the excavations and their great expense. He was afraid that in the future they would not get very many small objects at Deir el Bahari, except in the northern part of the central platform. Here there was still an enormous mound, which had been fifty feet and was now twenty feet high, and at the western end of this there was still an apparently almost untouched part of the temple. While that mound was being removed two pairs of eyes must be incessantly upon the watch. When that was finished they would come upon a piece of ground which had been worked over and over again, and was, in fact, absolutely honeycombed with holes, there being no two feet of earth which had not been dug.

Sir John Fowler then asked the consent of the meeting to the following presentations: To the British Museum, fragment of limestone from the excavations at Tell Baklieh (1892), inscribed in sunken hieroglyphs with the name of the ancient Egyptian city of that site—*Bah*, in the nome of Thoth—and dated XXXth Dynasty; a fine bronze from Bubastis, inscribed around base and representing the cat-headed goddess Bast and four kittens. To the Museum of Fine Arts, Boston, U. S. A., fragment of limestone slab inscribed with hieroglyphs in relief, and coming from the excavations at Tell Mokdam (1892), a site which M. Naville has identified with the Leontopolis of Strabo; a

fine unused mummy-case from the embalmers' quarters in the temple of Deir el Bahari, inscribed for Na-Menkhet-Amon, a prophet of Amon, connected with the royal family of the XXIInd Dynasty, one of his ancestors having been son to an Osorkon and brother to a Takelothis.

In the evening M. Naville gave a full and interesting lecture on his work at Deir el Bahari, illustrated with admirable limelight photographic views of the excavations in progress, and of the beautiful halls and sculptures which he has restored to the knowledge of the world.—*Academy*, Nov. 3, 1894.

MR. PETRIE'S EGYPTIAN RESEARCH ACCOUNT.—It was announced, in the *Academy* of Sept. 29, that it was proposed to establish an Egyptian Research Account, with the object of enabling some of Prof. Wm. Flinders Petrie's students, whom he has thoroughly trained in his methods, to undertake separate branches of exploration under his direction. Subscriptions should be sent to the treasurer, Mr. F. G. Hilton Price, 1 Fleet street, E. C.—*Academy*, Sept. 29.

In a subsequent issue of the *Academy* Professor Petrie issued his appeal under the title "The Rescue of Egyptian History." He says: "The destruction of the monuments and historical records of Egypt, which is going on year by year, threatens soon to leave no history to be further recorded. Every season sees buildings ruthlessly destroyed for the sake of materials, and a host of objects plundered by natives from towns and cemeteries in order that they may be scattered without name or record among the tourist flock. Even those objects which pass into museums have lost most of their importance and of their value in losing all record of their original place and circumstances. The laws of Egypt may be excellent in theory, but in practice it is perfectly well known that hundreds of persons join in this destruction—yet no man is punished for it. . . . . To avoid this prevalent system of mere plundering, trained hands and heads are needed to observe and to record. Such is the scarcity of suitable workers at present that even the Egyptian Government is obliged to leave most of its excavations in the hands of natives, from whom no record is ever obtained or expected. Before we begin the salvage of the wreck, which is breaking up fast before our eyes, we need men who can put information in a permanent form as they discover it. In short, scientific training is indispensable.

"But at present there is no means of acquiring such training. The Egyptian Government is concerned to keep its antiquities safe, and to find objects for its museum. The French school—liberally maintained by the French Government—is concerned with the desirable work of copying, reading and publishing inscriptions. The Egypt Explora-

tion Fund is concerned with excavating temples and finding big monuments. There are no regular and independent workers of any nationality, except one or two English. No public body does anything for the great subject of the civil life, archæology and anthropology, of the country; and there is no place where any student can get training in the very elements of archæological research. There is no lack of men willing to do such work: several have applied to me since Egyptology has been at last publicly established in this college. My earnest wish is to be able to encourage such workers, and to see a sound British school of scientific archæology established in Egypt. The first and most essential step is to be able to help men who come forward, and to cover their expenses and costs of work. The historical results and the objects procured by excavation in any reasonably good site are an ample justification of the cost incurred.

"The aim of the Egyptian Research Account, which is now established, is not to undertake great clearances or exploits in the country, but to fit men for work of the highest class archæologically, and at the same time to benefit our knowledge and our museums as far as may be, by means of their excavations. Mr. Hilton Price, the director of the Society of Antiquaries, attends to the financial side of the receipt and custody of all subscriptions. A cordial response has been made in many quarters, and over £200 has been received. Audited accounts will be annually rendered, and a publication of the work done will be given to each subscriber. As to the actual work, I hope to superintend two or three able and suitable men, whose expenses may be thus partly provided for, and who will work in the neighborhood of my own private excavations year by year. A very good ground for such work has been applied for this year, and without any cost whatever to the Research Account. I shall be on the spot, carrying on my own work, and be able to help and guide the new enterprise. Whatever antiquities may be found in this work for the Research Account will be divided amongst public museums, with due regard to the localities of subscribers; but no money will be used in carrying great blocks, which might as well remain in Egypt."—*Academy*, Oct. 20.

QUESTION OF PHILÆ AND THE ASSUAN DAM.—Mr. W. E. Garstin, Under Secretary to the Egyptian Ministry of Public Works, has issued the note upon the proposed modifications in the Assuan dam project, which was approved in principle by the government last June. That project consisted in the construction of a dam having its crest at the reduced level of 114 metres, which would provide storage for water sufficient for the irrigation of Middle and Lower Egypt during the months when the Nile is low. Many European archæological societies protested strongly against this scheme, involving as it did the submer-

sion of the celebrated Philæ temples, together with a considerable number of important Nubian monuments, for a period of six months each year. The Ministry has endeavored to reconcile the material interests of the country with those of science by submitting a modified scheme, which has received the approval of the government, and the financial problem will be dealt with in the coming budget. This present plan provides for a dam at Assuan having its crest at the reduced level of 106 metres, or 8 metres (26 feet) lower than that originally proposed. This will retain water sufficient for either Middle or Lower Egypt, but not for both. The adoption of this plan involves a much slower reclamation of the country, but entails the submersion of only a part of the Philæ Island, containing the smaller monuments, which could be protected by special works to be planned in accordance with the wishes of the learned societies. It leaves the other Nubian monuments untouched. In order to minimize still further any possible loss to science from the construction of such a vast reservoir, topographical surveys will be made this winter to fix the true bearings of the Nubian monuments, so that the learned societies may take measures to protect them if they see fit to do so.—N. Y. *Evening Post*, Dec. 8.

The latest stage of the question is about as follows, as stated in the London *Daily News:* "As the result of their deliberations at Philæ in regard to the measures to be taken for the protection of the temples from injury by the construction of the new Nile reservoir, Mr. W. E. Garstin and the archæologists with whom he has been in consultation are unanimously of opinion that nothing can be finally settled on the point until the mass of débris and the mud-brick erections which cover a large portion of the island are removed and the underlying masonry is laid bare. This masonry will have to be subjected to a scientific examination in order that a solution of the many vexed questions concerning the age of the Philæ temples, etc., may be arrived at. Mr. Garstin therefore asks the government to grant sufficient money to carry out the above work, which he says is of the highest importance."—N. Y. *Evening Post*, March 23, 1895.

In the meanwhile the committee of the Society for the Preservation of the Monuments of Ancient Egypt have published (Kenny) a useful pamphlet, dealing in a popular manner with the proposed reservoirs in the valley of the Nile. After a general statement of the question a list is given of the chief objects of archæological, historical, and artistic interest that would be submerged by a dam at Assuan, showing that the Temple of Philæ is by no means the only one, or even the most important; and at the end is a sketch map, on a large scale, marking the principal sites mentioned. It is shown that a large

number of the most important monuments of Nubia would be submerged if the original project were carried out.

GREEK INSCRIPTIONS AND PAPYRI IN EGYPT.—Professor Sayce publishes under this title an article in the *Revue des Etudes Grecques* for July-September, 1894. He first speaks of the inscriptions which he discovered when in company with Professor Mahaffy in a journey beyond the first cataract. Amongst the inscriptions is a poem in 34 lines, painted in red, above the second door in the south wall of the fore-court of the temple of Kelabsheh. This Ethiopian poem has been restored and interpreted by Henri Weil, whose transcription is here given. The verses are correct, but the style is poor. The plan of the poem is as follows: (1) Introduction. (2) Recital of a dream which the poet had in the subterranean part of the sanctuary of the god Mandoulis, who is identified with Horus. In this crypt there existed apparently an oracle by incubation. (3) Apparition of Mandoulis, praise of him and the command given by him to the poet. There follows a translation by Weil. The second (2) inscription is also painted in red capitals on the wall of the court of the same temple, and has been published also by Mahaffy in the *Bull. corr. Hell.*, XVIII., p. 151. (3) The third inscription, on the south wall, was already known from the Corpus, Vol. III., 5039. The most of the other inscriptions are unimportant or fragmentary. Two of them found in the quarries behind the temples are evidently Christian, but contain strangely Pagan sentiments. One mentions Vestinus, who was Prefect of Egypt under Nero, and gives for the first time his precise date and his full name. Another one dates from the year 211 under the Emperors Caracalla and Geta. The first of the papyri published undoubtedly comes from the Fayum, but was bought at Cairo by Mr. Fraser, and afterward being copied of Professor Sayce, was stolen and has disappeared. Some fragments here published belong to the ancient Cusæ and relate to a corporation of grave-diggers called νεκρόταφοι a word which has been met with only in the Egyptian poet Manetho. The date of these fragments is about 305 B. C., while another dates from the reign of Philip (244–249 A. D.)

PTOLEMAIC INSCRIPTIONS.—In the *Mittheilungen d. k. deut. arch. Inst.*, 1894, p. 212–287, Max L. Starck publishes and discusses seven *Inscriptions of the time of the Ptolemies.* No. 1 records the dedication of a strip of land to the great great-god Suchos in honor of King Ptolemaios, also called Alexander, the god Philometor. This is Ptolemaios Alexander I. No. 2 records the dedication of a temple, sacred precinct, and officers to the great goddess Isis in honor of Ptolemaios, son of Ptolemaios, the god Epiphanes and Eucharistos. This is the eldest son of Epiphanes. The word Μαρωνεύς in this inscription is derived

from Maronis, a deme of Alexandria. No. 3 is in honor of Apollonios, son of Thou, on account of his goodwill toward King Ptolemaios and Queen Kleopatra, gods Epiphaneis and Eucharistoi and their children. No. 4 is in honor of King Ptolemaios and his queen-sister Kleopatra and queen-wife Kleopatra, gods Energetai and their children. The date is 144–132 or 124–117 B. C. No. 5 is in honor of King Ptolemaios and the queen-wife Kleopatra, gods Energetai and their children. Like No. 4, the dedicator is a foreign officer of the guard. No. 5 is dated Oct. 3, B. C. 129. No. 6 is dedicated to the goddess Arsinoë Philadelphos. No. 7 appears to be a forgery. It pretends to be a dedication to Epiphanes by one Kallistratos and his soldiers.

CAIRO.—ADDITIONS TO THE MUSEUM.—The following report has been received by the Egyptian Exploration Fund from its local honorary Secretary for Cairo, Captain H. G. Lyons, R.E.: "Among the recent acquisitions of the Giza Museum, perhaps the most noticeable are two squads of soldiers from the VIth Dynasty tomb at Assiut, which have been found since last winter. Each squad consists of forty figures, fixed to a wooden board in rows of four, and shown in the act of marching. The first one is composed of men of a brown complexion, presumably Egyptians, with thick heads of hair fastened back with the usual band, which is tied behind. The figures are of wood and are about thirteen inches high, the whole squad being well sized and containing few men below the general standard. They are clad in a loin-cloth, white or yellowish in color, reaching rather more than half way to the knee, while their equipment consists of spear and shield. The spears are about the height of the men themselves, and are carried vertically with the butts at the level of the knee. The heads are bronze, and make up about one-sixth of the total length of the spear, becoming very broad where they meet the haft, like the large spears of the Baggara Arabs of to-day. The shields, which are about eight inches from top to bottom, have a square base and come to a point at the top. Inside there is a wooden batten across them, at the part where the shield begins to narrow, which serves to carry it by. All the shields are painted with rude splotches of color, or irregular mottling, while some show a zigzag pattern of lines, or even diamond bands, almost calling to mind the bars of heraldic shields; but so far as the position of the soldiers bearing these in the squad goes, nothing tends to show that they had any distinguishing value.

"The second squad are black-skinned, and have the hair similarly dressed and tied back, while their clothing consists of a very scanty loin-cloth of a red or yellow color, and some few also wear necklaces and anklets. They are armed with bows and arrows only, each man

carrying four arrows in his right hand and a bow in his left. These arrows are tipped with flint, which is shaped to a chisel-like edge and not to a sharp point.

"The race distinction between the two squads is very marked, by a difference not only in complexion, but in size; for the black soldiers are at least half a head shorter, and have, besides, a much larger proportion of small men in their ranks. These smaller men are, just as in the Egyptian squad, arranged in the left centre section, *i. e.*, in rows 6, 7 and 8. The Egyptian squad is closely 'locked up,' which contrasts strongly with the much looser formation in which the black troops are marching; and though this may be partly due to the fact that the blacks are armed with the bow instead of the shield and spear, still the impression which one gets is that they represent the irregular forces rather than the regular drilled bodies to which the other squad seems to belong.

"From Dashur are two large boats, now on view in Room No. 16. They are about the same size and of a similar type, but one is considerably better preserved than the other. Of the former, almost the whole hull and a considerable part of the deck remains, as well as four or five of the cross thwarts on which the deck is laid. The extreme length is about thirty feet, beam seven feet, and in depth about three feet. The planks of the hull are fixed together with dove-tailed dowels and wooden trenails.

"An extremely fine model of a boat comes from a XIIth Dynasty tomb at Assiut. It is five feet long and about fifteen inches broad. It is fully decked over, and the after part of the deck is occupied by a two-roomed cabin, which takes up rather more than half the whole deck space. Each room has a wooden door, on which is drawn a portrait of the owner of the tomb, with his titles; in the forward cabin five figures are seated, while on the forward part of the deck are two more figures seated and two standing, one of whom is in the bow with a punting or sounding pole. The cabins are roofed over with bent wooden rafters neatly fitted together. The mast is stepped in a hole in the deck, and supported by a wooden box, which was strengthened by three wooden struts to keep it firm."—*Academy*, Oct. 27th, 1894.

DAHSHUR.—DISCOVERY OF JEWELRY AND TOMBS.—M. de Morgan has made a further discovery of jewelry of the XIIth dynasty, similar in beauty and quantity to his famous discovery of last spring. The *Chronique* (1885, No. 11,) gives an account of the discovery of a part of this jewelry in two tombs which were found near those previously discovered and belonging also to the XIIth dynasty.

The first tomb contained the sarcophagus of Princess Ita-Ourt. The mummy still wore a pearl necklace with gold pendants, bracelets

with beads of gold, of cornelian, emeralds, lapis-lazuli, etc. It was covered with very beautiful stuffs, and around it lay sceptres, a bow, a mace, all in perfect preservation. Around the sarcophagus was an extremely interesting collection of funerary objects, such as perfume-burners, vases filled with cosmetics, still sealed, etc.

In the second tomb was enclosed a granite sarcophagus in which, according to the inscriptions, lay the body of Princess Sit-Hat, decorated with necklaces and bracelets of gold and with pearl parures. Among the usual funerary objects there was found a unique piece, namely, a swan carved in wood, which for a wonder had been preserved.

TOMB OF USERTESEN AND NORTHERN PYRAMID.—M. de Morgan has succeeded in entering the tomb of Usertesen III, and is now investigating the northern pyramid of Dahshur, which has never been attempted. Excavations carried on around the monument have already brought to light vast constructions in crude brick, which appear to be special chapels, and also the houses of priests attached to the service of the pyramid.—*Chronique*, 1895, No. 6.

KARNAK.—The Society for the Preservation of the Monuments of Ancient Egypt has issued an appeal for a special fund to be devoted to preserving the Temple of Karnak from further decay by pumping the water of the Nile inundation out of the ruins. Donations may be sent to the honorary Treasurer, Mr. F. G. Hilton Price, 17 Collingham gardens, S. W., or to the honorary Secretary, Mr. Edward Poynter.—*Academy*, Nov. 10, 1894.

LUXOR.—M. G. Daressy, of the Ghizeh Museum, Cairo, has issued a pamphlet in which he describes fully the temple of Amenophis III at Luxor; he also discusses the repairs and additions thereto made by later kings of Egypt, and he gives a clear plan, showing the results of the excavations made during the last few years by the administration of the Ghizeh Museum. A list of the names of the Egyptian royal benefactors of the temple, printed in hieroglyphic characters, adds to the value of this work.—*Athenæum*, May 12.

MEMPHIS.—FRENCH EXCAVATIONS.—The efforts of the French archæologists during 1894 were centered on the Necropolis. While M. de Morgan was carrying on his excavations at Dahshur, MM. Gautier and Jaquière explored the environs of Licht, where they have been working since the beginning of the autumn according to a well-thought-out plan, with the object of bringing to light all the monuments of the ancient and new empire. Their greatest discovery has been that of ten statues in perfect preservation, 1.80 m. high, all of them representing King Usertesen I, the second sovereign of the XIIth dynasty. They were found in a hiding place made next to the funeral chapel of the

king. There were discovered at the same time some tables for offerings and a large number of fragments.—*Chronique*, 1895, No. 6.

CENTRAL AFRICA.

The *Nyasa News* reports the discovery of curious works in stone at Fwambo and other places on the plateau between Lakes Nyasa and Tanganyika. They consist of spheres, discs and slabs, 3 in. to 6 in. in diameter, and perforated in the centre. The stones are of various kinds, but always hard, and occasionally roughly polished. The natives, among whom stone-cutting is an unknown art, describe these finds as "works of God."—*Athenæum*, Nov. 3, 1894.

TRIPOLI.

RAMADA.—M. Philippe Berger has submitted to the *Académie des Inscriptions* the facsimile of an important bilingual inscription—Latin and neo-Punic—found by M. Foureau on an ancient mausoleum at Ramada, in South Tripoli, during his recent mission to the Touareg tribes of the Sahara. Ramada appears to be the point furthest to the south where Latin inscriptions have been found in this region. This mausoleum was erected in two stories surmounted by a pyramid, and was dedicated to the memory of Apuleius Maximus Rideus (?) by his wife Thanubra and his children. The inscription is carved above a large bas-relief representing the deceased and his wife, accompanied by a series of classical scenes—Orpheus and Eurydice, Hercules and Alceste, etc. It is noticeable that whilst the names of the ancestors of Apuleius are altogether Punic, he bears another name, Latin and Punic, and his children bear names purely Latin.—*Athenæum*, Aug. 25.

TUNISIA.

BISERTA.—The *Vossische Zeitung* describes a silver sacrificial bowl which was lately found while dredging in the harbor of Biserta, the ancient Carthaginian Hippo-Zarytos. It is oval in form, shallow, and provided with two handles, and weighs nine kilogrammes. The inner surface is richly ornamented with a design in inlaid gold, representing the conflict of Apollon and Marsyas. A satyr plays the double flute before the muse, the arbitrator of the contest, around whom are grouped the partisans of the two competitors. It is a Hellenic work of the first century of our era, at which period the present Biserta was a Roman colony, and is undoubtedly the most valuable piece of workmanship in the precious metals which has as yet been discovered in Africa. It is now in the possession of the Bardo Museum.—*Athenæum*, Oct. 6.

CARTHAGE.—DISCOVERIES IN THE PUNIC NECROPOLIS.—The latest discoveries made by Father Delattre have been made in a Punic necropolis near the Serapeum. A large Punic tomb which had never been opened was found, and the contents were intact and undisturbed. A number of other tombs surrounded this large monument. It is now possible to form a clear idea of this necropolis, situated in the part of the ancient city where no one would have suspected the existence of Punic tombs. When the excavations have been finished it will be possible to compare these tombs with those of the various other necropoli of the city. Thus far not a single drinking-vase, with the mouth on its belly, nor a single unguent vase, so common elsewhere, have been found. Neither have there come to light any Punic coins, tufa sarcophagi, amphoras for child burial or urns enclosing bones, nor is there any trace of cremation.

Père Delattre has excavated in the previously discovered Punic necropolis two fresh tombs, the contents of which proved of more than ordinary importance. In the first, of rectangular form and of a style belonging to the sixth century B. C., was found the skeleton of an adult whose cranium presented all the characteristics of the Phœnician type. The rich objects lying around the body showed that he was a person of some distinction. The other tomb, discovered in the same trench, contained a vase of fine black clay, a goblet of red clay with black line ornamentation, the base of a vessel of similar make and decoration, an incense-burner of brown clay, a Punic lamp, some shells, a small bronze axe, a bronze mirror, two alabaster vases, some scarabæi, some *figurini* of Anubis and of Ptah, and some ornamental objects in silver and agate.—*Athenæum*, Dec. 22, 1894.

KOURBA.—At the session of the Academy of Inscriptions and Belles-Lettres, held on January 25, M. Michel Bréal communicated a Latin inscription recently found in Tunisia, which is remarkable both for its historical contents and for some linguistic peculiarities. This inscription was found at Kourba, not far from the city of Tunis, by Capt. Lachouque, of the geographical service of the French army. It is of the year 49 B. C., and recalls one of the most dramatic epochs of Roman history. The personages named in it have been made familiar by Cicero, Lucan, Appian and especially by Cæsar, who speaks of them at length. It refers to the putting into a state of defence of Curubis (now Kourba) at a time when it was in the hands of Pompey's followers, and when they were expecting an attack from a force landed from Cæsar's fleet. The inscription gives a quite new military term, *posteicus*, a word hitherto unknown. It means either some military work of inside fortification or else a sally-port, a postern. At the same session of the Academy M. Dieulafoy, the well-

known explorer, was elected to membership.—N. Y. *Evening Post*, Feb. 25.

OUDNA.—RUINS OF A ROMAN VILLA.—New discoveries have been made in the ruins of the Roman villa, already noticed in the JOURNAL (IX, p. 271) which is being cleared at Oudna. Three new chambers have been found decorated with geometrical ornamentation, alternating with birds and theatrical masks. They open to the right and left on apartments which have not yet been cleared. The last room is connected by an entry with a vast hall as remarkable for its architectural arrangement as it is for the richness of its ornamentation. The five columns supporting the roof are divided into two parts, one surrounding the other. The first, attached directly to the wall on the west side, is separated on three of its sides by a colonnade from the outer portico. To the east are the doors of three symmetrical small chambers decorated in exactly the same manner. Their walls are covered with white stucco decorated with frescoes. One of these paintings representing two theatrical masks has been transported to the museum of the Bardo. The pavement is formed of white mosaic, divided into rectangular sections, in the centre of which is the head of a pastoral divinity. The mosaic of the atrium is extremely elaborate. The frame consists of fifty-eight medallions in two rows each, enclosing a different subject: an animal, a bird or a geometrical design. In the intercolumniation is a frieze with lions and panthers pursuing a deer. Finally, in the space enclosed in the colonnade, is the principal picture. It represents a farming scene of the Roman period. In the background is the dwelling of the master, a farm-house with monumental façade with a porte cochère, a second smaller door and two windows on the first floor. Against the house leans a plow, under the porch rests a shepherd leaning on his crook and counting his goats, who are returning from the field. In front of the farm-house is a large hut for the slaves and the watering trough fed from a well by a *balancier*, like those which are so often seen in France, especially in regions where wood is abundant. A slave is working it to give drink to the horses. To the right a slave is leading a mule heavily laden, whom he is doubtless taking to market, and a laborer is prodding up two oxen who are pulling a plow. Other pastoral or hunting scenes surround the central composition. To the right a shepherd is milking goats, another is picking fruit and the third is playing on a double flute. In the centre is a mountainous bit of scenery, and we see a boar hunt, and further on a hunter hiding under a goat skin crawls along after some partridges and quails, and finally, to the left is a wounded lioness fighting two mountain huntsmen, who are killing her with javelins.

ALGERIA.

RUSUCUM-TIGGERT.—EXCAVATIONS OF THE BASILICA.—The excavations in the Basilica of Rusucum have been finished. It is found that the building consists of three naves divided into eleven bays, supported by double columns. In the apse are two doors still in place, which communicate with the sacristies. It is built with material from ancient temples, and contains more than a hundred columns over one metre in diameter. The ground is entirely covered with a mosaic pavement. A large part of this rich decoration has disappeared, but certain fragments of it remain. In the midst of elegant ornamental designs there were many inscriptions, devices, moral maxims and symbolical compositions, such as the sacrifice of Abraham. Among the sculptures found are two of remarkable interest: one representing a scene of martyrdom and the other Balaam striking his ass. The architect charged with the excavations believes that the Basilica was built in the fifth century, restored in the sixth and destroyed by fire probably at the time of the Arab invasion.—*Chronique*, 1894, No. 26.

TIPASA.—In the *Mélanges d'Archéologie et d'Histoire* (Oct. 1894), of the French School at Rome, S. Gsell makes an extended study of the Roman town of Tipasa. Although situated but a short distance from Algiers, the ruins of Tipasa have not yet been the subject of a special monograph, although many notes concerning it and special monuments have been published in various reviews. Little is known of the history of Tipasa; its name is Phœnician, and the Carthaginians had a settlement here. Coins from Carthage, Numidia, Greece and Rome have been found here. Inscriptions refer to a municipal council and to a quinquennial duumvirate. Under the Antonines and the Severi Tipasa reached its period of greatest prosperity. At first situated upon the hill, the town extended into the plain. This extension appears to have occurred during the second half of the second century of our era, at which time the town may have had a population of twenty thousand inhabitants. Tipasa appears to have been a commercial town; its port, it is true, was not a good one, but its geographical position offered commercial advantages. Tipasa had commercial relations with the east, and with the west as far as Gaul and Spain. Though surrounded by a strong rampart, she seems to have had no regular garrison. Her public buildings were numerous, but not luxurious. The population seemed to have enjoyed a comfortable subsistence, but rich men were rare. It was not an artistic centre; the sculptured sarcophagi found there were apparently imported. Christianity seems to have been very flourishing at Tipasa.

The ruins are amongst the best preserved in Algeria; they occupied a central hill and a portion of two other hills; their extent is a kilome-

tre and a half from east to west, and 750 m. at the point of greatest breadth from north to south. Large necropoli are found outside of the rampart at the eastern and also at the western end. Within the rampart there is also a cemetery of the end of the first or beginning of the second century of our era. The extent of the town appears, in earlier days, to have been smaller, since there is a mausoleum within the rampart, a position which the Romans would not have allowed. As regards the Phœnician site, there is no certainty, but this town, like the first Roman settlements, was probably situated upon the central hill. The rampart is nowhere well preserved, but is recognizable; in its full extent it was 1.60 m. broad and well constructed; it was fortified with round towers and quadrangular bastions; there were three gates, each of which was defended by four towers. The rampart does not antedate the first century after Christ, and its destruction is not due to time alone. It was probably made an open town in the second half of the fifth century, for we know from Procopius that Genseric dismantled all the towns of Africa of their walls, in order to prevent his subjects from revolting and the Romans from finding fortified places in case they wished to make war against him. The port was situated between two small islands and the eastern hill, a common Phœnician custom.

The most important ruin is that of the baths; it is constructed partially of brick and partially of stone; it has not yet been entirely disinterred, but the number of the rooms and the general arrangement is sufficiently evident. Southeast of the baths is the amphitheatre, in a bad state of preservation; this is oriented from southwest to northeast, and measures 100 m. in length. It was surrounded by several public monuments; the most important of these was a civil basilica, or perhaps a market place. Its precise purpose cannot be determined.

The central hill was probably the site of several ancient temples, and was known later as Templensis: only a few ancient fragments of the temples have survived. This central hill seems also to have been the site of a church erected in honor of St. Salsa. On account of the abundance of vegetation, even the site of this church is uncertain. To the west of the amphitheatre was a semi-circular Nymphæum, a portion of which remains. M. Trémaux preserves in his garden a fragment of a marble statue found on this site. This Nymphæum is of moderate dimensions, of mediocre construction and of late date. The aqueduct which brought water to Tipasa terminated a few metres south of this fountain. The remains of several of the constructions are found in the neighborhood of the Nymphæum, amongst which may be mentioned a Christian basilica, the capitals of whose columns, in debased Ionic style, belong to the Byzantine period. At the eastern

extremity of the rampart are found the remains of an important building; this was a basilica 52 m. in length, by 45 in breadth, one of the most important Christian edifices in Africa. The interior of the building was divided into seven aisles, separated by piers carrying archivolts. The central nave measures 13.50 m. It was entirely decorated with a mosaic pavement which covered a superficial area of 700 square metres. At a later period the central nave was divided by two rows of columns, thus making nine aisles in all. To the north of the basilica were connecting buildings, which have in great part fallen into the sea. The adjoining baptistry was a square building and had a mosaic pavement, in one corner of which is found an inscription badly preserved.

In the eastern portion of the town can be distinguished an ancient road, and the remains of buildings and cisterns of no great importance. The most interesting of these appears to have been a public granary. Throughout the town there are many remains of houses. Brick was but little used, on account of the abundance of stone. In general the stones were only roughly blocked out, cut stone being used for the angles, door-jambs, sills and lintels. The roofs were made of wood and covered with tiles. The window openings presented geometrical figures and sometimes Christian symbols.

Outside the old town at the E. end is found a necropolis containing tombs of three different kinds: (1) Troughs cut in the rock and containing ashes of the dead; (2) ditches for bodies that were buried; (3) caverns constructed of cut stone, or cut in the rock, and containing either buried or burned bodies. Usually the bodies were laid upon the ground without coffins. In one tomb the body of an infant was found, placed between two halves of an amphora, according to the mode of burial very common in Africa, and from the Carthaginian period down to the Christian era. As most of these tombs had been visited and robbed, it is difficult to give a full view of their contents; however, there were discovered as many as thirty-nine different kinds of vases, besides lamps and objects of bronze, such as mirrors, strigils, bracelets, earrings and coins. This necropolis appears to belong to the first century of our era. Several sculptured marble sarcophagi have been found, some notice of which is given further on. The Christian cemeteries are situated outside of the ramparts; one at the east, and one at the west. These two necropoli with their thousands of tombs well preserved, form certainly one of the archæological curiosities of Algeria. Each of them contains an important edifice; that at the east, the basilica raised upon the tomb of St. Salsa; that at the west, the funerary church of Bishop Alexander. In the centre of the basilica of St. Salsa is a pagan tomb, surmounted by a cippus, upon

which is an inscription to Fabia Salsa. The church of Bishop Alexander is situated about 200 m. from the rampart to the west of the town. The plan is trapezoidal, and is divided into three aisles, the central nave being entirely paved with mosaics. These mosaics present pompous inscriptions. Various kinds of tombs are found in these cemeteries, but the practice is of burial only, with no funerary objects. Some of the tombs are cut in the rock; others are sarcophagi of stone or of terracotta; others, again, are buildings or mausolea of various forms.

Outside of the ramparts may be traced with certainty four ancient roads, one going to Cæsarea, a second to Icosium (Algiers), a third in the direction of Montebello, and a fourth to Aquæ Calidæ. There are in the neighborhood of Tipasa many ruins, but they present little interest. Of these may be mentioned an elaborate farmhouse and a fortified residence. Tipasa is far from having furnished as many figured monuments as her neighbor Cæsarea, where at the time of Augustus there reigned a prince who was fond of the arts, and which, during the Roman rule, was the capital of the province. Besides religious and funerary steles, Tipasa has furnished a number of richly sculptured sarcophagi. One of these called the "sarcophagus of the married couple", contains four divisions on its principal face, one of which represents the hand-shaking, the other the sacrifice. In the outermost compartments are figured the Dioscuri. A second sarcophagus represents the story of Pelops and Œnomæus. A third contains the representation of the Good Shepherd; the fourth represents the seasons, and a fifth Hebrews carrying the grapes of Canaan. Amongst the other objects worthy of mention are a few engraved gems and a large silver patera now in the Louvre.

ASIA.

ARABIA.

JOURNEY OF MR. BENT IN SOUTHERN ARABIA.—The article of greatest popular interest in the *Geographical Journal* for October is Mr. J. Theodore Bent's account of his recent expedition to the Hadramaut in Southern Arabia. This is a singular valley running for a hundred miles nearly parallel to the coast, and on the average about that distance from it, and inhabited by intensely fanatical Bedouins and Arabs. Though known from remotest antiquity as the centre of the trade in frankincense and myrrh, no European has succeeded in reaching it till last year, Mr. Bent's party being the second. The name means in the Himyaritic language "valley of death," which "in

Hebrew form corresponds exactly to that of Hazarmaveth of the tenth chapter of Genesis." It is a fact, interesting especially to Biblical students, that the most sacred places in the valley are the primitive tombs of the legendary prophets Saleh and Hud (or Eber, a synonymous term), names which will be found in Genesis in close connection with that of the valley. The appearance of the valley from the arid plateau is very remarkable. It contains some fine and lofty palaces, rich in carving, and ruins of great antiquity, somewhat similar to those found in South Africa, and exhibiting a few Himyaritic inscriptions. The jealousy of some of the tribes, however, prevented any thorough exploration, which Mr. Bent reserves for a second expedition.—New York *Nation*, Oct. 25.

BABYLONIA.

ABU-HABBA.—Father Scheil, the French dominican archæologist, is in charge of a government mission for excavations at Abu-Habba for the Constantinople Museum, to which he has dispatched numerous Assyrian inscriptions and remains.—*Athenæum*, Sept. 1.

NIFFER-NIPPUR—DISCOVERIES OF THE PHILADELPHIA EXPEDITION.—The excavations at Niffer, commenced some five years ago by an expedition sent out from Philadelphia under the auspices of the University of Pennsylvania, have not yet come to a close. They will be continued during 1895 under the direction of Mr. Haynes, who has had charge of them for over three years. Too much praise cannot be given to his devotion. He has continued the excavations through the entire year, during the wet and the heated seasons, when, thus far, all excavations have been stopped.

Dr. Peters has given in this number of the JOURNAL a detailed account of the results of the excavations on the principal mound, which he calls the "Temple Hill," or mound of the *Ziggurat*. In another paper, to be issued in the next number of the JOURNAL, Dr. Peters will describe discoveries in another mound at Niffer, and also report on one or more mounds at a certain distance from this city, and belonging to other ancient centres of population.

Our knowledge of the structural and decorative forms of early Babylonian architecture will be notably increased as soon as the results of the excavations can be given in their entirety. Even now we can foresee how students will welcome two facts that will be clearly brought out, namely, the use of the arch and of the column. Both the round and the pointed arch is found; these arches are true arches, built both of unburned and of burned bricks. The pointed arch is used in vaulted drains. A photograph has been sent by Mr. Haynes of the entrance to such a pointed, arched passage, which he attributes to the

Roman period. Dr. Peters, however, places it before the time of Sargon I, under whose level it was found. The round arch is seen in Fig. 7 of Dr. Peters' article on p. 20 of this number, in the doorways of the houses in the temple area.

On a mound at some distance from the Temple Hill a large structure has come to light, containing a most remarkable colonnade. This consists of a row of circular columns built up of pear-shaped bricks. This is an entirely novel disclosure of the resources of Babylonian architecture. Dr. Peters dates this work, I believe, in the second millennium, B. C. It will be remembered what a sensation was caused by the discovery at Tello, by M. de Sarzec, of the lower sections of two brick columns. These were not circular, but were a bundle of four interpenetrating circular shafts. The bricks used in their construction were of the same pear shape as those at Niffer. But at Niffer the circular form is for the first time found.

Prof. Hilprecht spent some months during the summer and autumn at Constantinople in connection with the Imperial Museum and to complete the organization of the Babylonian collections, resulting largely from the Sultan's share of the excavations. Last year Dr. Hilprecht spent ten weeks on these collections. He has also been engaged in preparing for the press the second volume of the publication of the detailed account of the American expedition.

At the meeting of the Philological and Archæological Societies in Philadelphia, Dec. 27, Prof. Hilprecht showed in a detailed paper the importance of the Babylonian library found at Niffer. There are some twenty thousand inscribed bricks, cylinders or tablets. Historically their importance is great, as they give new names of kings and inscriptions of unparalleled length for the early and middle periods of Babylonian history.

TELLO-LAGASH.—A ROYAL BABYLONIAN VILLA.—At a meeting of the *Académie des Inscriptions*, on November 9, M. Heuzey studied in detail a group of structures and monuments lately discovered by M. de Sarzec, at Tello, the ancient Lagash or Sirpurla, belonging to the residence of the earliest kings, 4000 B. C. The earliest are recorded by foundation tablets of the Patesi Entemena, of which there are five new copies that aid in the interpretation of the text. This ruler figures here especially as a patron of agriculture. Among his favorite plantations are two woods, which he places under the protection of two different divinities, the Goddess Nin-harsag, the divinity of the mountains, and mother of the Gods, the Babylonian prototype of Kybele, and the Goddess Nina, the divinity of the waters, symbolized by a vase containing fish. To the same goddess he dedicated a sanctuary, as to "She who makes the dates grow." It is certain that, by means of the hydraulic

works, traces of which have been found on every side, the desert of Tello was at that time transformed into a real forest of date trees. The ancient Babylonians had a popular song celebrating the 360 benefits of the date tree. Among the gifts of the sacred tree, one of the most important was a fermented liquor, analogous to the date wine mentioned by Pliny, or the Arak of the Arabs. Certain constructions found by M. de Sarzec (a kind of press or oval basin, cellars whose walls contain bituminated vats in the shape of amphoras), show that this was one of the most popular products of this royal villa.

DISCOVERY OF THE ANCIENT BRICK LIBRARY.—During the Eighth Campaign of excavations by M. de Sarzec, an important discovery has been made of a library of clay tablets with cuneiform inscriptions, numbering over thirty thousand. These are city archives, analogous to those found on the site of Nineveh, Sippara and Niffer. The find at Tello is the largest thus far made. The tablets were found under a mound about two hundred metres distant from that where the palaces of the ancient kings had previously been found. The tablets were arranged in five or six regular rows within narrow galleries intersecting each other at right angles. These galleries were built of crude brick, and on each side were furnished with benches, on each of which were placed other layers of tablets. There were two distinct groups of galleries near each other. They are comparable to the *favissæ* of the classic temples which received the surplus of offerings. Five thousand of the tablets are in perfect preservation, five thousand more are but slightly damaged; the rest are in fragments, but can, in many cases, be put together again. There are two copies of many of the official documents bearing the seals of the witnesses and scribes. There are accounts, lists of offerings, inventories, etc. Mingled with the tablets are numerous documents of different shape, such as truncated cones, barrel cylinders, sacred stones, statuettes. A certain number of tablets, and of sacred stones with archaic characters, belong to the earliest period of the civilization of Tello, that of Eannadu, the king of the Stele of of the Vultures. The great majority, however, belong to two different types, the one resembling the inscriptions of Kings Ur-Bau and Gudea, the other more cursive, resembling more closely the Babylonian writing proper. Although these documents relate largely to religious subjects, many are of historic and chronological value from the names of the rulers that are mentioned, not only the rulers of Sirpula (or Lagash), but also those of the rulers of Ur, such as Dunghi, Gamil-Sin and Ibil-Sin, who shortly after the time of Gudea came into possession of this part of the country.

OTHER DISCOVERIES.—In continuing the explorations of the primitive strata that dated from the fourth millenium B. C., a number of

interesting structures were found, and several very early objects, such as two heads of bulls in copper, with incrusted eyes, a curious copper vase, and two new fragments representing the execution of captives, similar in style to the reliefs of the Stele of the Vultures.

In the second place the explorer undertook to clear the subterranean parts of the palace of Tello, where he carried on his first excavations, and especially the structure of Ur-Bau, the predecessor of Gudea.

Finally excavations were carried as far as the distant mounds to the south. There numerous monuments were found upon the site of an ancient sanctuary.

Of a special importance was the discovery in the midst of a stratum of fragments of sculpture and of inscribed stone vases, of a number of statuettes, the heads and even the profiles of which are intact. As all the statues thus far found have been headless, this discovery is of great interest for the study of the Babylonian type.

All the objects discovered have been handed over to the Turkish delegate to be placed in the Museum at Constantinople.

BABYLONIAN AND ASSYRIAN ANTIQUITIES.—Dr. Rifaat Effendi, a physician in the Turkish army, some time ago gave to the Imperial Museum at Constantinople a collection of vases he had made during his services in Irak and Mesopotamia. He has now presented a finer collection of Assyrian tablets, inscribed vases, signets, gems, a small Byzantine candelabrum and other objects.—*Athenæum*, Sept. 22.

PERSIA.

A PARTHIAN STANDARD.—M. Heuzey described at a meeting of the French Academy of Inscriptions a peculiar bronze from Persia, now in the Museum of the Louvre. It is a bronze circle within which are cut out five or six figures of Gorgons pursuing one another in fantastic course. This carved disk is separated by two reclining bulls, and is decorated on the outside like Greek mirrors with figures of animals in relief. All around are aquatic birds, and at the top a reclining deer. The form recalls very closely that of the military standards represented on the Assyrian bas reliefs, except that the god Assur shooting an arrow has been replaced by the Greek motive of the Gorgons, which carries the same idea, both protecting and terrifying. The style is that of the Parthian period. The combination of Oriental and Greek motives is explained by the great influence which the Hellenic element preserved in the Parthian empire, where it had been planted by the Macedonian Conquest, and the movement of colonization which followed it.—*Chronique*, 1895, No. 3.

SYRIA.

PROPER NAMES IN THE AMARNA TABLETS.—J. Perruchon publishes in the *Revue Sémitique* for October, 1894, an alphabetical index of the proper names contained in the letters found at Tel El-Amarna. This list is extremely convenient for reference and important for the geography, history and language of Syria, Phœnicia and Palestine in the XV cent. B. C.

THE SEPULCHRAL MONUMENT CALLED NEPHESH.—The Semitic word נפש designates not only the *soul*, but also a funeral monument of a special kind. It designates the stele in the form of a pyramid. The term is used in a monument of this form from Petra (Vogüé, *Syrie Centr.*, p. 90), and in the bi-lingual inscription of Suweida (*CIS.* II, 162), the Nabathæan נפש corresponds to the Greek στήλη. In Matth. I, 13 (27-28) Simeon Maccabeus is said to have erected over the tomb of his father and brothers seven pyramids, called in the Greek πυραμιδας, and in the Syriac ܢܦܫ; the seventh being reserved for himself. This text not only makes the form of the monument certain, but shows that as many pyramids were erected as there were persons buried. This is confirmed by the Medeba inscription (*CIS.* II, 196), which mentions a tomb with two pyramids, one for each of the two defunct. The pyramid, therefore, as it represented the individual after death, his spiritual self, appropriately received as a name the same word that meant soul or breath of life. In earlier Hebrew times the monument to perpetuate the name of the defunct in the absence of children was called יד *yadh*, "sign," a term which was superseded a few centuries B. C. by the term נפש. In II Sam. XVIII, 18, Absalom is said to have erected a stele to himself in order to perpetuate his name in the absence of son; it was called the *sign of Absalom*, יד אבשלם. In Isaiah LVI, 5 Jehovah promises to faithful eunuchs as a compensation for the children that they cannot bear *a cippus and name* (יד ושם) *worth more than sons or daughters.*

A neo-hebraic passage in point is from the *Bereshith Rabba* (Sect. 82, fol. 92), and says: "Rabbi Simeon, son of Gamaliel, taught that steles were not constructed (אין בונין נפשות) over the just because their words are their commemorative signs."

At a later period the word *naphsha* takes in Syriac a more general meaning and is applied to an entire monument and in the dialect of Tirhan, to the north of Bagdad, it received the meaning of funerary chapel.—RUBENS DUVAL, in *Revue Sémitique*, July, 1894.

PALMYRA.—In the *Archæologischer Anzeiger* (1894, pp. 112-115), F. v. Duhn describes *the oldest View of Palmyra*, a painting by an unknown, G. Hofstede, dated 1693, 1 Aug. It is now in the entrance hall of the university at Amsterdam, and is in some respects superior to the "cu-

rious prospect" of the ruins published in *Philosophical Transactions*, XIX (1695-97); cf. *Quarterly Statement of the Palestine Exploration Fund*, 1890.

SENDSHIRLI.—In the *Archæologischer Anzeiger* (1894, p. 188-190), is an abstract of a lecture by Dr. v. Luschan on the *Excavations at Sendschirli*. The lecture was delivered before the Berlin Anthropological Society, Nov. 10th, 1894. The graves and buildings already discovered were described, and the future tasks of the excavators outlined. The buildings described belong to the VIII, and one possibly to the IX, century B. C. Reliefs of warriors and musicians, lions that stood by a gate, bases of columns in form of double sphinxes, one base in the form of a single sphinx, and also a sphinx in relief, are enumerated. The graves are small *tumuli*, terracotta coffins and sepulchral chambers. They belong to the VII and VIII centuries B. C.

PALESTINE.

RECENT PERIODICAL LITERATURE.—A late number of the *Journal* of the German Palestine Society (Vol. 17, No. 3) presents an inviting feast to the student of the Land and the Book. In an article of thirty-five pages Benziger begins a *résumé* of the Palestine literature of all lands for 1892 and 1893, covering 287 numbers. It is a bibliographical collection of exceptional value, dealing with all the phases of the problem except the strictly biblical. The discussions in this direction are best recorded in the Old and New Testament department of the well-known *Jahresbericht* of Holtzmann and others. In this connection it is interesting to note the rapid growth of bibliographical aids at the disposal of the Biblico-Oriental student. The Oriental bibliography, the international project so favorably inaugurated by the late Professor Müller, is now in the capable hands of Professor E. Kuhn. The French have been particularly active in this line, having begun three projects of this nature during the last few years, the *Revue de l'Orient latin*; the *Revue biblique trimestrielle*, published by the professors of the Dominican School at Jerusalem, and the *Revue Sémitique d'epigraphie et d'Histoire ancienne*, by Halévy. In addition the new German journal, *Byzantinische Zeitschrift*, edited by Krumbacher, deserves special mention. With all these literary aids it is impossible for the biblical Orientalist, and especially the special student of the Holy Land, not to keep track of the discoveries and discussions in this department. In the same number of the German Palestine Society *Journal*, the well-known architect, Schick, of Jerusalem, continues his investigations into the History of the Architecture of the City of Jerusalem, the present article covering the period from the destruction of Jerusalem by the Romans to the time of the

Crusaders (70–1099 A. D.) Then come two newly discovered Greek inscriptions, one from Cæsarea, both discussed by Professor Gelzer, of Jena. The latter is short but interesting, reading "μημόριον διαφέρων Μαρίας καὶ Λαζάρου," and the inscription is thought possibly to mark the traditional resting place of the brother and sister whom the Lord loved.

JERUSALEM.—EXCAVATIONS BY MR. BLISS.—The last three statements of the Palestine Exploration Fund (July–October, 1894, January, 1895), contain the reports by Mr. Bliss on his excavations at Jerusalem, to which reference has already been made in the JOURNAL. In the October statement his report is accompanied by a plan from the enlarged ordnance survey plan, in which the excavations are marked in red.

In his October report, Mr. Bliss makes the following summary of his work: "The present report, written sixteen weeks after my last, will, I hope, be taken as a report of progress. I have to announce the presence of a splendid line of rock, scarped for fortification for over three hundred feet. We have also followed outside this scarp a long line of actual wall (*in situ*), of fine masonry; we have traced a paved street leading to a gate in this wall, which is in all probability the Dung gate of Scripture. In my report dated June 6th, two weeks only after the excavations had been begun, I showed how we took up the work on the so-called rock scarp of Zion, beginning our digging just outside the Protestant cemetery; I described the tower built on the rock scarp, (one side of which scarp is visible under the cemetery wall running southwest), and I showed how we had traced the counter-scarp of the ditch for over one hundred feet in a northeasterly direction, following the direction of the rock scarp as previously known. I intimated that I felt doubts as to whether this ditch belonged to the outer line of the wall, as it does not follow a steep contour (such as those found lower down the hill), and leaves outside of it, to the south, a large gently sloping tract, which would naturally have been included within the town." In pursuance of this doubt, Mr. Bliss sank a shaft and drove a tunnel which resulted in finding the desired outer scarp at a distance of forty-eight feet from the mouth of the tunnel. It was this scarp which was followed for a distance of three hundred feet by means of deep galleries. At one end the workmen came upon an aqueduct which temporarily interrupted tracing the scarp further east. Mr. Bliss argues quite fully in favor of this scarp being part of the outer fortification of ancient Jerusalem. Beside this discovery Mr. Bliss reports that of a wall which was traced for a length of about one hundred feet. The finding of a drain led to the discovery of an ancient street, and finally of a gate in the



wall. At one point, they discovered the ruins of a house of Byzantine times, which had been built over the ancient disused pavement. The workmanship of the wall is exceedingly regular and exquisitely careful. The stones have smooth faces, are dressed, with the comb-pick (without draft), and the point of jointure is so fine that sometimes it is difficult to find. The gate in this wall is identified with the Dung gate of Scripture.

Information, received by the Palestine Exploration Fund, of the work of Dr. Bliss at Jerusalem since his report printed in the October *Statement*, shows that he has found the gate near the southwest angle of the wall to which the lately uncovered paved road led. This gate stood four feet higher than the road, and the sill is *in situ*. Upon going just four feet lower, Dr. Bliss found a still older gate, which is clearly a part of the earliest wall. Thus he has opened the foundations of the times of the kings. Four large, square towers have also been uncovered near the same corner. At the same time Herr Schick reports the discovery of the gate called as early as XII century the Leper's Gate. This is the present northern wall, and seems to indicate that that wall never lay further out than it does now. This has an important bearing on the question of the sepulcher.—N. Y. *Independent*, Nov. 1, 1894 (cf., *Academy*, Nov. 3).

The Rev. Theo. F. Wright, U. S. Secretary of the Palestine Fund, gave an account of the latest discoveries at the meeting of the American Congress of Philological and Archæological Societies held in Philadelphia at the close of December.

LATIN INSCRIPTION OF TRAJAN.—Mr. James Glaisher, chairman of the executive committee of the Palestine Exploration Fund, writes as follows:—"Letters have been received from Dr. Bliss and Herr von Schick, stating that the iron-bound door of Neby Daûd, which had remained open against the wall for a number of years, having been recently blown down during a severe storm, there was disclosed on one of the stones behind it an inscription which seems not to have been before noticed. It is in Latin, and according to Dr. Bliss's report, is a votive tablet to Jupiter on behalf of the welfare and greatness of the Emperor Trajan and the Roman people, erected by the Third Legion, which takes us back to the interval between the destruction by Titus and the founding of Aelia Capitolina. It was partly covered with plaster, and may have been entirely covered when the door was last opened and shut, which may account for its being unnoticed. It is built into the modern wall about 15 feet above the ground. Roman inscriptions are very rare in Jerusalem, and this discovery is, therefore, of exceptional interest. A squeeze of the inscription is expected to arrive shortly. Up to the date of his last despatches Dr. Bliss was still tracing the line

of the old wall, which he had followed for over a thousand feet."—*Academy*, Dec. 22, 1894.

A BYZANTINE MOSAIC PAVEMENT.—In the construction of a new house on the site of the small hill north of Damascus gate, outside of Jerusalem, there was discovered, about three feet below the surface, an extremely beautiful Mosaic pavement, evidently belonging to a mortuary chapel. It is almost perfectly preserved. Near the east end there is an Armenian inscription to the effect that the place is in memory of the salvation of all those Armenians "whose names the Lord knows." The mosaic is about twenty-one feet long by thirteen feet wide, with a small apse pointing almost exactly east. Within a beautiful border springing from this vase is a vine whose branches form a symmetrical system of scroll work, extending over the whole surface. Tendrils and leaves grow at intervals, and branches of grapes hang so as to fill up the background, and the space within the scroll work is filled with numerous birds; peacocks, ducks, storks, an eagle, a parrot in a cage, cocks, etc. The mosaic is similar to that found not long ago on the Mount of Olives with an Armenian inscription (described in the JOURNAL), but it is also far more elaborate, being the finest work of the kind ever found in Jerusalem and unsurpassed elsewhere. It is evidently Byzantine in style. Mr. Bliss attributes it to the fifth or sixth century, although it may date a from somewhat later period. It is illustrated and described in a summary way in the October number of the Palestine Exploration Fund.

ASIA MINOR.

DISCOVERY OF CUNEIFORM INSCRIPTIONS ON HITTITE SITES.—M. Chantre has reported to the French Academy of Inscriptions upon the results of his archæological explorations in Asia Minor during the past year. The discovery of cuneiform texts in the Hittite citadel of Boghaz-Kewi, and that of the ruins of a Pelasgic city in the mound of Kara-Euyuk near Cæsarea are two facts which throw an entirely new light on the history of Asia Minor. Cuneiform texts were also found at Kara-Euyuk, some of them of the Achemenid, the others in an unknown language. The discovery of these texts in the province of Pterium adds considerable to the area of Assyro-Babylonian expansion. The discovery of a Pelasgic city opens up a new phase in the question of the so-called Mycenæan civilization, the existence of which in Asia Minor had hitherto been barely suspected. Details of M. Chantre's discoveries have not yet been been published, but a large publication is at present in the press.

MR. MONRO'S EXPLORATION.—Mr. Monro wrote from Brussa on Sept. 1, 1894, "I have just returned from a fortnight's tour with Prof. Ander-

son of Sheffield and Mr. Anthony of Lincoln College, Oxford, through the country to the west of Brussa, about the great lakes and the lower valleys of the Rhyndacus, Macestus, and Tarsius. It is surprising that this district is not better known. The roads are easy, etc.

"*Apollonia*, it is true, has often been visited from the time of Le Bas onwards, but inscriptions, reliefs, and small antiquities are continually turning up, and the town is full of them. The great temple in the lake, the walls with Hadrian's architrave built into them, and the tombs in the necropolis form a group of monuments of rare interest.

"From Apollonia it is a hot, uninteresting ride along the north shore to *Ulubad* on the Rhyndacus, just below where it emerges from the west end of the lake. Ulubad represents Lopadion, important in the Byzantine wars for its bridge. Several broken-backed arches of the ancient bridge still encumber the banks a few hundred yards above the modern structure. The bridge was guarded by a Byzantine fortress on the south bank of the river, within the walls of which the older part of the village is enclosed. There are also relics of a Byzantine church. Some important inscriptions, however, seem to show that Ulubad is much older, indeed pre-Roman. Were it not for the possibility that they have been brought from a distance to adorn the Byzantine church, one would say that Lopadion is merely the later name for Miletopolis. At Mihalitch, the site commonly assigned to Miletopolis, we found nothing of early date.

"The country between the lakes is a vast plain, mostly under water in the wet season, and broken only by low ridges. Between Mihalitch and Panderma we saw a strange relief of three horsemen in Oriental dress galloping over two corpses. The work appears to be comparatively late, but recalls in general the types of the Lycian reliefs. We also copied a Roman milestone at Omerkeui, the eighth stone from Cyzicus. After visiting Panderma (Panormus), Cyzicus, and Erdek (Artace), we struck inland through Edinjik, and round the western side of the Limne Aphnitis to *Manias*. It is two or three miles to the east of the Tarsius, and two hours to the northwest of Old Manias, which lies close under the mountain of the same name. On an isolated spur of the mountain, overlooking Old Manias, is a remarkable cluster of ruins. The hill-top has been a strong Byzantine fortress; on the shoulder of the mountain behind is a large early Turkish tomb; and on the isthmus between the two, in the midst of a tract of loose stones, stands a ruinous mosque. Marble blocks from earlier buildings have been freely used in the construction of all three. In the tottering wall of the fort in particular there is a course of small marble columns, stuck end on into the masonry, and another course of square bases. We read two inscriptions in this wall, one of them an important

honorary decree by the demes, peoples, and individuals in Asia in alliance with the Romans. There can be little doubt that the site represents the ancient Poimanenon.

"From Manias we followed a difficult hill-road to *Balukiser*. The oldest object in the town seems to be the fine cloistered mosque; and although Hadrianutheræ must lie somewhere near, the obstructive tactics of the local authorities prevented our hearing any information about it. Leaving Balukiser, and shaking off the dust of our feet against it, we turned northeastwards by the Panderma chaussée. Soon after we began to ascend from the flat plain to the harder ground of the hills, we became aware of an ancient paved road keeping company with the chaussée, now on the right, now on the left. We followed the same route for about an hour and a half, until the ancient road plunged down the valley of the Hatab, where we afterwards found it near Omerkeui, while we climbed the Demirkapu pass, and descended again into the Macestus valley to the hospitable roof of the director of the English Borax Mine. A couple of miles below the mines, just below the point at which the chaussée joins the Macestus, here freshly emerged from a mountain gorge, there is a ruined Roman bridge. The *débris* in mid-stream was blown up about fifteen years ago by the original French lessee of the mine, who hoped to make the river navigable for the transport of the mineral. There must have been at least ten arches in the bridge. Without doubt the ancient road we have traced is the Roman road, or rather one of the Roman roads, from Cyzicus to Pergamus. It loses itself a few miles below Omerkeui, but I would suggest that one branch continued down the Hatab Dere, and rounded the eastern spur of the Manias Dagh, passing near Poimanenon and on to the east of the lake, while another crossed the bridge and made for Ulubad.

"*Kussaba Kirmasti*, finely situated on both banks of the Rhyndacus where it breaks through a gap in a ridge, seems to be an ancient site, possibly Hiera Germe. The hill on the right bank is crowned by a mosque, in which are two fine Byzantine windows and other fragments; and we copied an inscription at another mosque on the left bank. From Kirmasti to Brussa we took the road along the south shore of the Lake of Apollonia. We found inscriptions at Akcheler and at Tachtaly."—*Athenæum*, Sept. 15.

A second letter dated, Smyrna, Oct. 1, 1894, reports on their expedition into the hills. "The district which we have attempted to explore is almost enclosed by the Rhyndacus and the Macestus. These rivers rise close together in the neighborhood of Simav, and again approach within a few miles of one another near Kirmasti. The country between them is a maze of rugged ridges and rocky ravines, mostly

clothed with forests of pine and oak. The streams run in valleys so narrow and difficult that the roads, or rather bridle paths, can seldom follow them, but are driven up hill and down dale to the most toilsome and circuitous routes. It is not surprising that such a bit of country contains few traces of antiquity, and remains very imperfectly known. Consequently, whereas our archæological finds lie chiefly on the outskirts of our field of exploration, our discoveries in the heart of the region are mainly geographical."

Starting from Brussa, they struck the Rhyndacus a little below the ancient Hadriani. "Proceeding eastward, we inspected Delikli Tash, the interesting Phrygian tomb two hours short of Tavshanly, which has been fully described by M. Perrot. At Tavshanly, and at its older suburb Moimul, there is an extraordinary abundance of ancient sepulchral *stelæ* of one uniform type, an *ædiculum* with gable and arch over a closed door, on which are sometimes represented emblems of the occupation or profession of the deceased. The general idea of the type may well have been traditional from the days when the Delikli Tash tomb was hewn. The stones are now the favorite form of fountain in Tavshanly and Moimul. It is evident that a considerable ancient city must be placed hereabouts; but opinions may differ as to its name, and, in the absence of books, I decline to hazard a suggestion."

"From Tavshanly we took an unexplored road south-westwards to Emed, which seems to be placed rather too far to the south on Kiepert's map. Indeed, the geography of this district is altogether misrepresented. Emed lies under the brow of a ridge overlooking a long slope to the south, at the bottom of which flows a tributary of the Rhyndacus, coming down from the Shaphana Dagh. We are able to give some support to Prof. Ramsay's conjecture that Tiberiopolis is to be sought in the neighborhood of Emed. We found there some very large columns and a great number of inscribed bases and *stelæ*. Unfortunately few of the inscriptions are legible, owing to the weathering of the soft stone. There is a plentiful hot spring below the town, which must have recommended the site for settlement. But the most striking and interesting proofs of antiquity are a jug and a bored stone, which we purchased from a laborer. They were found in a simple rock-cut grave recently opened on the west side of the town. Had I met with the jug in a European museum, I should have said without hesitation that it came from Cyprus, or possibly Caria, or the Troad. I am not aware of anything like it having been found in the heart of the interior. At Egriguz, a few miles to the west of Emed, there are a couple of inscriptions which have, perhaps, been carried thither. The mediæval castle, on a pinnacle of rock overhanging the

Iron Gate, seems to be the oldest building. At Assarlar, however, there are not only inscriptions, but traces of building, and two parallel walls of massive masonry sticking out of a hillside in a situation which suggests a temple site.

"We crossed the watershed to the Macestus valley by a long and difficult mountain track, and visited several small sites to the north and west of the Lake of Simav, but could hear of no important ruins in that direction. Accordingly we returned to the Rhyndacus basin by the easy pass traversed by the Balat road. It is in this valley that the other branch of the Sinjan Su takes its rise, and we intended to explore the river right down to Kestelek. Opposite to Sinekler, under the village of Tashkeui, there are remains of a sanctuary with dedications to Zeus Pandemus and to a hero Olympiodorus. Except at Balat, we found scarcely a trace of antiquity between this shrine and Kestelek. Kestelek has its mediæval castle (well placed on a spur which almost blocks the Rhyndacus valley) and a few inscribed reliefs. Thence we turned northwards again, and made for Kebsud, keeping the Chatalja Dagh on our right. This was another unexplored road. It presents few difficulties, but few points of interest. Kebsud lies in a plain, separated only by a low rise from the main valley of the Macestus and the great plain of Balikesser. There are plenty of "ancient stones," and some inscriptions, one of which suggests that Hiera Germe was here, and not at Kirmasti or Kestelek.

"The Macestus valley is as easy as the Rhyndacus is difficult. One readily understands why Cicero calls Cyzicus the door of Asia. Panderma, the modern sucessor to Cyzicus, is the main outlet for the trade of this region. At Persi, two hours to the northwest of Bigaditch, we found a curious rock-hewn church. Standing out from a hillside, an isolated pinnacle of rock known as Kissili Kaia overlooks the village and the Macestus valley. Its upper part is completely hollowed out. At the top is a square chamber with stone benches along each side, probably a hermit's cell. Below, one enters first an ante-chapel, one side of which is occupied by a rock-cut tomb, and then the little church itself, with triumphal arch, apse, throne, and piscina, all complete. Opening on to these by three doors in the north wall are a chapel and tomb chamber, separated by a rock screen, and a third chamber at a higher level at the west end. There are benches, niches, vaults, arches, and domes cut in the solid rock, and remains of frescoes on the walls. Here and there is a rude piece of carving, apparently birds and beasts. It seems to me not unlikely that this extraordinary little church was developed out of a series of rock tombs, probably of pre-Christian date."—J. Arthur R. Munro, in *Athenæum*, Sept. 15 and Oct. 20.

ARABIC EPIGRAPHY IN ASIA MINOR.—M. Camille Huart continues to publish in the *Revue Sémitique* (Jan., Apr., July and Oct., 1894) his contributions to the Arabic epigraphy of Asia Minor, of which we summarized the first installment in a previous number.

Konya.—(1) Inscr. at the Tach-Medressê, showing that the convent was built by 'Izz-ed-din Kaï-Kaûs II in A. H. 659 = 1260-61 A. D. (2) In the wall of the Seïd Mahmûd Turbêsi, an insc. stating construction of mosque under Kaï Kobad I, in A. H. 621, by a native of Konya. (3) In the same turbê, on the door, a record of the reconstruction of the tomb in A. H. 812 = 1409-10 A. D. It is interesting to note the inscription on an enamelled brick, showing that this decorative work of the monument was due to an artist of Mosul Ahmed ben Abd Allah. "It proves that early in the XV century this kind of decoration, of Persian origin, was executed in Asia Minor by Arab workmen from the region of the Tigris."

(4) Inscription recording the completion of the mosque of Ala-ed-din under Kaï-Kobad I, after it had been begun by his brother and predecessor, Kaï-Kaûs I, as is shown in the three following inscriptions. The reign of Kaï-Kobad was the most brilliant of any of this dynasty, and was a period of great architectural activity.

Doqouz-Khânê.—Caravanserai built by Othman, father of Abd-er-Rahman, under Kaï-Khosrau I, in A. H. 606 or 607 = 1209-1210 A. D.

BITHYNIA.—INSCRIPTIONS.—In the *Mitth. d. k. d. Arch. Inst. Athen.* 1894 (XIX), p. 368-373, R. Foerster publishes five *Inscriptions from Bithynia.* Three are metrical epitaphs. The others short dedications to Zeus Epidemios and Zeus βάλμιος. All are of late date.

GJÖLBASCHI-TRYSA.—In the *Mittheilungen Arch. Inst. Athen.* 1894 (p. 283-289), W. Gurlitt writes of *the Heroon of Gjölbaschi-Trysa.* He discusses the reliefs partly in opposition to F. Noack (*Mitth.*, 1893, p. 305 ff.) The representations are conceived of as pairs, one typical and one mythical scene; *e. g.*, a typical hunt (northern wall), and the Kalydonian hunt (southern inner wall). The conquest of the Chimaira points to the descent of the deceased from Bellerophon. The reason for the scene representing a man carrying some one in his arms is not known, but once that scene was given it was natural to select the rape of the Leukippidæ for another subject. The central part of the western wall represents a scene in the siege of Troy.

TROY.—In the *Mitth. arch. Inst. Athen.* (1894, pp. 380–394), W. Doerpfeld gives a preliminary report of *The Excavations in Troy* during 1894 (pl. IX). A full report is to appear as a book. The circuit wall of citadel of the sixth or Mycenæan stratum was laid bare. The wall was very strongly built. Three gates and three towers are described,

in one of which latter was a well. The ruins of buildings in the citadel are all near the walls, as all buildings in the middle of the sixth stratum were destroyed (*cf.* Troja, 1893). The interior of the citadel rose in terraces toward the middle. Many small objects were found, but none of great importance. The earlier citadel wall of the second stratum was discovered. The remainder of the historic sanctuary of the Ilian Athena was excavated and foundations of a great stoa were found at the east of the temenos. A third Roman theatre came to light on the southern slope of the hill. Diggings outside of the akropolis proved that the plateau of the lower city of Roman times was, partly at least, inhabited in the period of the sixth stratum. No graves of this period were found.

THE REAL SITE OF TROY.—In the Ἐφημερὶς Ἀρχαιολογική, 1894, pp. 69–100, G. Nikolaides writes on *Ilium according to Homer*. He brings forward from the Iliad, Odyssey, and later works arguments to show that the real site of Troy is Bunarbaschi. A cut gives the relief in the Capitoline museum, representing the life of Achilles. This is used as an argument in favor of the same site. Plate 3 gives a coin of New Ilium, the silver relief from Urg Kenai (Ἐφ. Ἀρχ. 1891, pl. 2, 2) and the drawing in the Ambrosian Library, fol. 54, (Inghirami, *gal. Omerica*). The silver relief is explained as a fragment of the death of Hector. The women on the walls are Hekuba, Andromache, and their relatives. The archers and slingers are the light-armed forces of the Greeks.

ASIATIC RUSSIA.

BAKHCHISARAI.—Restoration of the Ancient Palace of the Khans of the Crimea.—All archæologists will receive with pleasure the news that the government has granted 36,000 rubles for the purpose of restoring to somewhat of its former beauty the ancient Khan-Sarai, or palace of the Khans of the Crimea, at Bakhchisarai. The work of restoration is to be carried on under the direction of the Academician Kotoff, who is to restore it to the same appearance as when it was previously restored by Prince Potemkin for the reception of Catherine the Great in 1787. This ancient palace is reported to have been erected in the thirteenth century, and some portions belong to the eleventh century. The second court, which is called the new building, is entered by an iron gate, on which is the inscription stating it to have been erected by Menghi Ghirey Khan, who conquered the Crimea in 1480. In addition to the interesting suite of apartments contained in this court, are two fountains, one of which has been rendered historical by the famous Russian poet Pushkin, and the

inscription on it states that it was erected in 1756 by Khan Krim Ghirei in honor of Diliarah Bikeh, his beautiful Georgian wife, whom he could never induce to change her religion as a Christian to join that of the Mussulman.

Adjoining the Khan-Sarai is a large building containing the monuments of nearly all the Khans since 1654, and many tombs of the eleventh and twelfth centuries, as well as the tomb of Devlet Ghirey, belonging to the year 955. When I visited this old palace and passed two nights therein, two years ago, I was able, through the courtesy of the authorities, to examine all the interesting relics contained in this place, and although the original Tartar silk and satin hangings to the Khan's council-hall and private apartments were somewhat faded, yet the excellent manner in which everything has been kept, leaves the palace in almost its original condition, as when it was inhabited by the mighty Tartar Khans in bygone ages, notwithstanding that during the Crimean war it was used as a hospital, and that nearly 50,000 Russians were carried out of the building to find a resting-place forever within a few minutes' walk of its historical walls. —Odessa Correspondence, London *Standard*, in N. Y. *Evening Post*, March 30.

TURKEY.

CONSTANTINOPLE.—COLLECTIONS.—Photographs have been produced at Constantinople of the large collection of Seljuk, Turkoman and Ottoman coins in the Imperial Museum there, and an album has been presented to the Sultan, together with a special catalogue of the antiquities in the Museum. In consequence of this a further grant of 150*l.* has been made to print a catalogue of the general antiquities, and one of the numismatic collections. There has been brought to the Museum the head of a statue, supposed to be of a Jupiter, from the excavations going on at Hissarlik.—*Athenæum*, July 28.

Exploration.—Turkey will soon be a closed country to the archæological amateur. At Kutahiyeh, in Asia Minor, the authorities have seized, on the premises of a foreigner, a carved marble slab he had purchased from a native. This has been sent to the Museum at Constantinople. At Voorla, on the Gulf of Smyrna, some sarcophagi have been found and dispatched to the Museum, after being examined by Mr. Humann, the archæologist. The Turkish Press is taking an interest in such matters.—*Athenæum*, May 12.

Earthquake.—According to an official account of damage done by the earthquake, the great monuments have escaped: Santa Sofia, Nouri Osmanieh, Sultan Selim, Shahzadé, Laleli, and Sultan Ahmed.

They are declared not to have sustained any appreciable damage. The *Levant Herald* announces that the cupola of the Mosque of Santa Irene has been cracked in several places. Many old mosques and minarets are known to have fallen, and it cannot fail to be the case that many monuments of antiquity have been lost; and this not only at Constantinople, but throughout a large part of Asia Minor and Rumelia. —*Athenæum*, Aug. 4.

KYPROS.

FUNERARY SPHINX.—The stone sphinx discovered in 1886 by Ohnefalsch-Richter at Marion-Arsinoe, and now in the Museum of the Louvre, is of especial interest, as proving without a doubt the funerary use of the sphinx in Greek sculpture. It is known that the sphinx, as a funerary symbol, is of Oriental, and more precisely, of Egyptian origin. For the Assyrians, the sphinx was more particularly decorative. The Greeks borrowed from Assyria the type of the sphinx, and from Egypt its symbolic funerary significance. But before the discovery of the sphinx of Kypros the sphinx of Spata was the only Greek sculpture of this type whose funerary character could, with probability, be established. Its upper part is not finished, a fact which indicates that it was placed at a certain height. The back is also unfinished, so that it is clear that it could be seen only in front, and finally it was found in a necropolis with other decorative marbles certainly belonging to tombs. It must, therefore, have been placed at the entrance of a tomb, erected upon a column or base.

The sphinx of Kypros is even more certainly sepulchral. It was found in the necropolis of Marion in the midst of an avenue of tombs and near the entrance to one of them. On the same spot a second sphinx of same style and dimensions, but in poor preservation, was found. It seems evident that these two sphinxes were placed in front of the entrance of the tomb. Their style is that of the middle of the VI century, and the tomb itself, judging from the objects it contained, certainly dates from this period. The sphinx of the Louvre is extremely interesting also as a work of art. Although the head is certainly archaic in its character, it shows that the artist had gotten rid of some of the conventions which had trammelled the art of the VI century. He has diminished the obliquity of the eyes and given up the archaic smile. It is evidently a work of the great Ionian school of Asia Minor, whose influence was so universal during the VI century. —*Bull. corr. hell.*, August-October, 1894.

GOTHIC MONUMENTS.—Announcement has been made that the Louis Boissonet prize for architects and engineers will be given in the

year 1895 for the purpose of studying Gothic architecture in the Island of Kypros. A special study must be made of the monastery at Delapais, between Nicosia and Kerynia. This study involves that of the church, cloisters and rooms of the monastery, to be treated both from an historical and technical point of view. The wish is expressed that the Gothic churches in the neighboring towns Nicosia and Famagusta should also be studied. The stipulations of the prize call for drawings of the ground-plan, elevations, sections and important details. A monograph upon this subject must be prepared by April 1, 1896.—*Kunst Chronik*, Feb. 7, 1895.

KRETE.

PROFESSOR HALBHERR'S EXPLORATIONS.—After remaining on the island of Krete for an entire year, conducting explorations on behalf of the Archæological Institute of America, Professor Halbherr returned in the late autumn to Rome and is at present busy putting his results into shape for publication in this JOURNAL and afterwards in book form. The latest and perhaps the most important of his investigations —the excavation of the Byzantine structure of Gortyna—was not mentioned in the report printed in the last issue of the JOURNAL. Here were found the most important inscriptions of the season's work.

KRETAN HIEROGLYPHICS.—Under the title "Primitive Pictographs and a Pre-Phœnician Script from Krete and the Peloponnese", Mr. Evans writes an article of more than one hundred pages in the *Journal of Hellenic Studies*, vol. XIV, part 2, 1894. Having been led by the marks upon Mycenæan vase-handles to inquire into this subject, as has already been told in this JOURNAL (IX, p. 477), Mr. Evans made a journey to Krete where he obtained a large mass of material from inscribed vases and engraved gems, which enabled him to gather together a long series of pictographs and of linear signs apparently derived from them. Of pictographs, he found some eighty-two in number: of these six are derived from the human body; seventeen from arms, implements and instruments; eight from parts of houses and household utensils; three from marine subjects; seventeen from animals and birds; eight from vegetable forms; six from heavenly bodies and their derivatives; one is a geographical or topographical sign; four are geometrical figures and twelve uncertain symbols. Very many of these pictographs are found to resemble Egyptian hieroglyphics; on the other hand almost as many resemble Hittite forms. Considering that the choice of comparison is in the case of the Egyptian hieroglyphics very much larger than that of the Hittite, he infers a closer affinity to the Asianic side. This relationship is, at

most, of a collateral nature, since most of the usual Hittite symbols are conspicuous by their absence. Comparisons drawn with Kypriote symbols suggest that several systems had grown up out of still more primitive pictographic elements. Some evidence as to the chronology of these Kretan gems is afforded by the points of comparison that they offer with Mycenæan forms. From a gem found at Goulàs, Mr. Evans constructs a possible Mycenæan ceiling-decoration not unlike the sculptured ceiling at Orchomenos. Further comparisons drawn between early Kretan seal-stones and Egyptian scarabs of the twelfth dynasty, lead him to assume a Kretan period of earlier date than that usually assumed for the Mycenæan. Out of this pictographic series of symbols a linear and quasi-alphabetic system seems to have arisen. Such Kretan forms are identical in many cases with Ægean signs found in Egypt and with some Kypriote characters. The analogies found with the hieroglyphic systems of the Orient lead him to believe that he has discovered in these symbols the manner of writing of the Eteo-Kretans, recognized by the Greeks as the original inhabitants of Krete. This aboriginal race he believes extended from the eastern to the western end of the island. About 900 B. C., to judge from the bronzes of the cave of Zeus, there was a strong Assyrianizing influence, due no doubt to Phœnician contact: what is known elsewhere as the archaic period of Greek art, is here conspicuous by its absence. To the Phœnicians belongs the credit of having finally perfected this system and reduced it to a purely alphabetic shape. Their acquaintance with the various forms of Egyptian writing no doubt assisted them in this final development. Thus it happened that it was from an outside source that the Greeks received their alphabet at a later date. But the evidence now accumulated from Kretan sources seems at least to warrant the suspicion that the earlier pictographs out of which the Phœnician system was finally evolved were largely shared by the primitive inhabitants of Greece itself. So far indeed as the evidence at our disposal goes, the original centre of this system of writing should be sought nearer Krete than Southern Syria.

The Kretan seal-stones also throw a new and welcome light on the early culture of the Hellenic world. The implements and instruments of the early Kretans are here before us; the elements are present from which we can reconstruct larger decorative designs; here also are protrayed the ships they sailed in; the primitive lyres to which they sang; their domestic animals; the game they hunted; the duodecimal numeration that they employed. We see before us the prototypes of more than one of the characteristic forms of Mycenæan times and abundant proofs of a close contact with the Egypt of the twelfth dynasty.



In a paper read before the British Association and reported in the London *Times*, Mr. Evans gave reasons, based on his recent archæological discoveries in Eastern Krete, for believing—what had long been suspected on historic and linguistic grounds—that the Philistines, who, according to unanimous Hebrew tradition, came from the Mediterranean islands, and who were often actually called Krethi in the Bible, in fact represented this old indigenous Kretan stock. In Egyptian monuments these people, who came from the 'islands of the sea,' were seen bearing tributary vases of forms which recurred on a whole series of engraved gems seen or collected by Mr. Evans in Eastern and Central Krete. Their dress, their peaked shoes, their long hair falling under their arms, all reappeared on Kretan designs representing the inhabitants of the island in Mycenæan times. In view of these facts, Mr. Evans asked whether certain remarkable parallels observable between some of the Kretan pictographs and the earliest forms of Phœnician letters might not best explain themselves by this early Kretan colonisation of the Syrian coasts.

DR. TARAMELLI'S INVESTIGATIONS.—Dr. Taramelli, of the Archæological School of Rome, went to Krete last summer for the purpose of studying the prehistoric antiquities of the island. He also wished to prepare for publication an account of the chief antiquities possessed by the various collections of the place. Dr. Taramelli assisted Professor Halbherr in his investigations and will contribute some papers to the series to be published in this JOURNAL. [The sad accident which put an end to Dr. Taramelli's studies in Krete is referred to in the report on Dr. Halbherr's work in a late issue.]

DR. MARIANI'S INVESTIGATIONS.—Dr. Mariani, of the same school, has published his report on the ancient city discovered by him near Candia, which he thinks may be identified with Apollonia, and with the primitive site (afterwards changed) of Tylissos. He is preparing for publication a memoir on various Cretan antiquities, some of which are hitherto undescribed objects in the museum of the Greek Syllogos.

Aside from his early discoveries, Dr. Mariani tells of the main results of his investigations in the following letter:

"While on the mission with which I was lately entrusted by the Archæological School of Rome, I was able to carry on researches in several districts of Krete, especially in the neighborhood of Canea and Rettimo and in the eastern portion of the island. My object was chiefly to study some of the more vexed topographical questions of the country, and to explore the more important centres of its pre-Hellenic culture. I reaped an abundant harvest of materials for forming a judgment on these points.

"I began by examining the remains of the pre-Hellenic necropolis of

KYDONIA, and was able to ascertain that, contrary to the opinion of Admiral Spratt, the site of the ancient city has been occupied uninterruptedly, and must be identified with that of the present town of Canea. Among the classical monuments here is a female statue of Doric style, which has hitherto passed unnoticed. By its characteristics it is connected with the cycle of works of art represented by the pediments of Olympia. A visit to APTERA enabled me to make a plan of the fine walls of the ancient city, while a tour in the district of Rettimo gave me a good idea of the plan upon which the cities of the interior were built.

"Of the discovery of a Mycenaean city at MARATHOKEPHALA, in the vicinity of Candia, I have already treated in a paper printed in the *Transactions* of the Royal Academy dei Lincei. In this neighbourhood I was able to determine the site of the two ancient harbours of Knossos: namely, MATION and HERAKLION, the former of which occupied the ground where Candia afterwards arose, while the latter must be identified with Amnissos. I next addressed myself to the identification of the sites of the Homeric LYKASTOS and of ARKADIA; and I succeeded in establishing the truth of Bursian's assertion, that the former was near the modern village of Kanli Kastelli. Some imposing archaic fortifications are to be seen under the Byzantine walls of the fortress which occupied the hill. Admiral Spratt placed Lykastos on the hill of Astritzi, some miles to the east; but the ruins there seem too insignificant, and also of a later period. As for Arkadia, it is situated exactly where Spratt placed it: namely, on the heights of Ascekephala, or, as they are by some called, Kastriotes; and its ruins extend, as I was the first to ascertain, as far as the summit of the neighbouring hill of Tshifoot Kastelli, now occupied by the remains of a fortress of later date.

"After examining the cities of the interior, I betook myself to the eastern districts. In travelling to Goolas I stopped at a hitherto unexplored locality called ANAVLOCHOS, where I found unmistakable traces of a very ancient settlement, the importance of which in Mycenæan times could not have been much inferior to that of the famous city to which I was directing my steps. An examination of the ruins of GOOLAS, the most remarkable of the prehistoric cities of Krete, taught me to distinguish several peculiarities in the architecture employed in the island at this early period for public and private buildings. The city occupied a crater-like hollow between two mountainous crests, each of which formed an akropolis extending up the western slope. In one akropolis are to be seen the ruins of a circular tower, while the chief building of the other is an oblong temple of peculiar construction, of which I intend to publish a plan made by

Dr. Taramelli, my successor in Kretan exploration. The heights of Goolas slope down towards the sea in the direction of the modern harbor of Haghios Nikolaos, the centre of the trade of the district of Mirabello at the present day. Here, in ancient times, was the city of LATOS *pros Kamara*. My investigations brought to light some important Greek inscriptions, of which one of the chief is the dedication of a shrine of Aphrodite, while another gives the name of a new Kretan tribe, that of the Anaischeis. Others, which are sepulchral, have made us acquainted with the site of the Hellenic and Roman necropolis of Kamara.

But the most important results of my campaign were obtained in the distant and isolated region of the Eteocretans. This forms the extreme eastern portion of Krete: it is a very mountainous region, separated from the rest of the island by an imposing range of lofty peaks, which seems to block all access to the isthmus of Hierapytna. Its chief modern centre is the harbor of SITIA, which gives its name to the whole district. A city of the same name existed in ancient times; and the first mention of it which has been found occurs in a remarkable inscription, which I had the good fortune to discover and copy in a house in the village of Piskokephalo. It comes from the ruins of Praesos, and contains a long treaty concluded in the Macedonian period between the Præsians and the citizens of Sitae and Stelae, concerning the fisheries and the trade in the purple *murex* on the coast of this part of the island. This document enables us to give credence to a passage of Stephanus of Byzantium, relating to the city of Stelae, placed between Praisos and Rethymna, which some have wished to correct by changing the two last names into Priansos and Rhytion, cities belonging to another and distant region.

The most populous part of the Eteocretan region was that of the so-called *pharangia*, in a very wild district near the sea. The Eteocretans had settled in very early times in the midst of these inaccessible ravines. Spreading from Praisos, their capital, they founded hamlets and fortifications on all the most commanding points. Sitia, the harbor of Praisos, was protected by three fortresses, Trapezous, Frankachora and Leopetra. Between Praisos and the eastern coast may be observed an almost uninterupted series of ancient remains, which had not hitherto been examined: Sitanos, a small town with a sanctuary; Tsikalaria, an outpost; and Zakro, a considerable city connected, by means of two other fortresses situated in a narrow valley, with Kato Zakro on the coast. This latter has been described by Admiral Spratt. In the ruins called Aspra Kharakia, near Zakro, I am inclined to recognize a large temple with out-buildings, perhaps *thesauroi*. These remains exhibit none of the characteristics of an Eteocretan town, nor

any signs of defensive works, but resemble the ruins of Malia or Azymo, in the district of Mirabello, which were, I think, correctly considered by Spratt as belonging to a temple of Britomartis. As the temple of Zeus Dictaios was, according to the testimony of the Toplu-Monastiri Inscription, on the confines of Itanos and Praisos, I am inclined to regard the buildings at Aspra Kharakia as part of this celebrated temple.

Of special importance are the objects of Eteocretan art, which I collected on my journeys in this district. They consist, for the most part, of very rude terracotta *figurini*, having, on the one hand, some characteristics of Mycenæan art, while on the other they are connected with Asiatic art, and with Hittite art in particular. This fact, together with historical and philological reasons, and also the peculiar forms of the ancient local names, has led me to the following ethnological conclusions with regard to the primitive inhabitants of Crete. The Cydonians, Eteocretans, and perhaps the Pelasgians, are three branches of an original pre-Hellenic race from Asia Minor, belonging to a group of pre-Aryan and pre-Semitic peoples: namely, those Ægeo-Asians, who were, as I believe, the depositaries of the so-called Mycenæan culture. They are the same peoples who appear in the history and monuments of Egypt under the various names of Peleśtha, Turśha, Kheta, Kepha, &c. Hence I am of opinion that the historico-biblical questions of the identification of Kaphtor with Krete, and of the Philistines as being originally of this island, ought not to be hastily abandoned, in spite of the opposition of the predominant school, which holds that the Mycenæan culture was an Aryan and Hellenic product.

In the public collections already made in Candia, Rettimo, and Hierapetros by means of the local Syllogoi, to which Greek societies we owe the preservation of many monuments of ancient art, I found materials of considerable importance, which I am now preparing for publication. Of these the principal is a collection of fragments of native pottery, which, while resembling the Mycenæan type, approaches much nearer the Theran period. These were found in a votive grotto on the southern slopes of Mount Ida, above the village of Kamares, where Dr. Taramelli afterwards made excavations and found further examples.—LUCIO MARIANI, in *Academy*, March 2.

PHAISTOS.—In the *Mittheil. Inst. Athen.* (1894, p. 290–293) K. Wernicke discusses once more *the Rhea-epigrams from Phaistos*. The oracular verses mean that the great mother prophesies only to those who have children, and only concerning the children. This explanation relieves grammatical and other difficulties.

EUROPE.

GREECE.

ARCHAIC FUNERARY STELE FROM SYMI.—Among the recent additions to the museum at Constantinople is an archaic funerary stele, which originally existed at Symi, and was photographed there in 1889 by members of the French School. Although broken in the middle and slightly damaged in the upper part, the monument is complete. The stele is slightly pyramidal in shape, like the Attic monuments of the same style. It is a marble block devoid of ornament, upon which is given the outline of a figure in profile standing upon a base upon which is carved a boar. There is no inscription and there are no remains of painting, a fact that is not surprising in view of the poor condition of the surface. The attitude of the figure is like that on the Attic steles. The figure is that of a young man, standing in profile, walking to the right; he is beardless and wears nothing on his head; with his left hand he leans on his lance; his drapery is very simple, and apparently consists of a mantle draping his chest and falling to his knee in folds, that are held by the right hand; the legs and feet are nude. The boar is often represented upon monuments of Ionian origin, on coins of Lykia, sarcophagi of Klazomenai, Ionian vases, Xanthos sculptures, *etc.* The technical process is interesting in its simplicity, which recalls the process of Boutades, who is fabled to have filled with clay an outline projected upon a wall. Here the sculptor drew upon the marble in a long sinuous line the profile of the figure, hollowed out the stone around it, and thus produced a flat image without modelling—a shadow as it were upon the marble. Not daring to carry very far his work, he indicated the details of the drapery merely by lines. The face is still without expression, the nose prominent and angular; the eye similar in its oblong shape to the crude essays of the first vase painters. The analogy of this sculpture with the earliest carved columns of the temple of Artemis at Ephesos, is sufficient to prove its Ionian origin. This stele is about contemporary with the column decorated by Croesus between 560–546; it marks the point of departure of an evolution of funerary sculpture which ends in the stele of Alxenor. During the forty or fifty years which separate these two works, we can place all the primitive steles of Greece proper, attaching them all to the Ionian school. Ionian influence seems to have reigned without exception from Attica to Akarnania, from Aktium to the borders of the Archipelago, and this is but a confirmation of the activity which made the Persians call Ionian artists to Persepolis.—*Bull. Corr. Hell.*, 1894, August–October.

PORTRAIT BUST OF KING MITHRADATES VI.—In the *Jahrbuch Arch. Inst.*, IX (1894), pp. 245–248 (pl. 8, cut), F. Winter publishes a marble head in the Louvre, which he shows is a portrait of Mithradates VI, Eupator, or the Great, King of Pontus, the famous adversary of the Romans. The head wears a lion's mask as a helmet. The expression of the face is energetic, but not noble. The identification is made possible by coins of Mithradates. This bust has been exhibited in the Louvre since 1870, and marked as representing a Greek king as Herakles. No further identification has been proposed until Mr. Winter was struck by the analogy between it and the profile of Mithradates the Great, as it is given on the fine coins collected by Theodore Reinach. The resemblance to one of these coins struck at Pergamon, when Mithradates was about forty-five years old, is striking; but Mithradates is known to have had himself represented in the character of Dionysos, and was not expected to be portrayed in the garb of Herakles. M. Solomon Reinach, however, notes a fact which had escaped Mr. Winter in connection with the coins of Odessos, on which Mithradates is represented as Herakles. In the year 73 B. C., Marcus Lucullus, brother of the conqueror of Mithradates, being Prætor in Macedonia, took and pillaged a number of Greek cities on the coast of the Black Sea, and among them was Odessos. At the time of his triumph in Rome in 71 B. C., he exhibited a colossal statue of Apollon, which he had captured at Apollonia, and it may be conjectured that he brought from Odessos a statue of Mithradates as Herakles, the head of which is now in the Louvre.—*Chronique*, No. 8, 1895.

APHRODITE PSELIOUMENE.—W. Klein publishes a bronze statuette in Kassel, which he regards as a copy of the *Pselioumene of Praxiteles*. The nude Aphrodite stands with her weight on her left foot. Her hair is gathered in a braid behind and crowned with a stephane. She is using both hands to fasten a chain (not represented) about her neck. —*Jahrbuch Arch. Inst.*, IX (1894), pp. 248–50, pl. 9.

GROUP OF WRESTLERS.—W. Amelung shows that the head of the Niobid, Dütschke 253, does not belong to the group of wrestlers in Florence, as Gräf (*Jahrb.*, IX, p. 119 sqq.) thought. The heads of the wrestlers and of the Niobid are all replicas of one original. The wrestlers belong to a time after Lysippos, but before the rise of the Pergamene school.—*Archäol. Anzeiger* of the *Jahrbuch Arch. Inst.*, 1894, p. 192.

THE HERA OF GIRGENTI MODERN.—In the *Archæologischer Anzieger*, 1894, pp. 193 sq., A. Fürtwangler publishes a photograph of the "Hera from Girgenti," inscribed, "Testa di Giunone. Scultura moderna. Roma." As the photograph with the inscription was bought

by P. Arndt before 1890 (probably 1888), and the photographer probably had no knowledge of Fürtwangler's remarks in the *Arch. Zeitung*, 1885, it seems likely that he knew something of the modern origin of the head.

THE SIDON SARCOPHAGI AND THEIR HISTORIC CONNECTIONS. — F. Studniczka writes, in the *Jahrbuch*, *On the Foundations of the Historical Interpretation of the Sidonian Sarcophagi.* The eighteen sarcophagi discovered in 1887 fall into two classes, anthropoid sarcophagi and Greek sarcophagi with gables. Each of these classes falls into two subdivisions. The earliest sarcophagi are those imported from Egypt, ascribed by Studniczka to the VI century B. C., then the Greek anthropoid sarcophagi of the first half of the V century, next Greek sarcophagi with gables, but retaining the anthropoid shape of the interior. To this division the "satrap sarcophagus" belongs. The fourth subdivision retains no trace of the anthropoid shape. The "Lycian" sarcophagus dates from about 400 B. C., the sarcophagus of the mourners from about the middle of the IV century, the Alexander sarcophagus from near the end of that century. The sarcophagi were placed in the chamber where they were found in the order of their manufacture, and there is no reason for assuming that they were originally intended for other than Sidonian owners. The position of the chambers, close behind and under the tomb of Tabnit, and the diadem of the corpse in one sarcophagus (No. 17) shows that the sarcophagi belonged to members of the royal family of Sidon. The sarcophagi belong to five generations. The form of the sarcophagus of the mourners is derived from the canopy used in prothesis. The mourners represent the wives of the deceased. Several kings of Sidon are known. The Tetranmestos in Xerxes' army may be the head of the first generation here represented (sarcophagus No. 3). The Sidonian ruler who joined the fleet under Konon before the battle of Knidos in 396, may have laid in the Lycian sarcophagus; the sarcophagus of the mourners may have belonged to Straton I., and the Alexander sarcophagus is allotted to Abdalonymos, who was set upon the throne by Alexander after the battle of Issos, B. C. 332. He owed this elevation to Hephaistion, whose likeness appears in one of the reliefs. Besides the battle of Issos, the reliefs show hunting exploits of Abdalonymos and his warlike deeds after the death of Alexander. —*Jahrbuch. Arch. Inst.*, IX (1894), pp. 204–244, w. plate and 13 cuts.

APOLLON AGYIEUS BY MYS.—In the *Mitth. Arch. Inst. Athen.* (1894, pp. 340–345), J. Six writes of the *The Agyieus of Mys* (seven figures). A conical stone in Corfu (Brugemann, *Indogermanische Forschungen*, 1893, pl. 1, pp. 87–89) bears the archaic inscription Μῦς *με ἱσατο.*

The stone is explained as a rude idol of Apollon Agyieus, and is compared with two similar stones in Pompeii.

SIGNATURES OF THE SCULPTOR EUTYCHIDES.—When Loewy published his inscriptions of artists the signatures of Eutychides numbered six. Since that time the excavations of Homolle and Fougères have brought several others to light: 1. The dedication in honor of Theodora, daughter of Krateos of Teos, published in the *Bull. Corr. Hell.*, 1888, p. 260. 2. The fragments of a base of a statue found in 1885 with the inscription: . . . νος καὶ Σαρ[απίων . . . 'Αθη]ναῖοι Δωσίθε[ον . . . Μα | ρ]αθώνιον 'Απόλ[λωνι, 'Αρτέμιδι] Λητοῖ.

Εὐτ]υχίδης . . . . ἐποί[ει].

3. Two fragments of a circular base in white marble:

'Απόλλωνι 'Αρ]τέμιδι Λητοῖ Δύτυχίδης ἐποίει.

The period at which the artist lived can be more clearly determined by these inscriptions than has hitherto been done. The date of two of these works is indicated by the priesthood of Dionysios Spheltios, 119–8, and by the magistracy of Aristion in 98–7. Another is dated by the name of an archon, probably of one dating from 105–4.

It will thus be seen that Eutychides is the immediate contemporary of Hephaistion. As we find the artists Boethos and Theodosios, Dionysodoros, Moschion, Adamas, Demostratos, and finally the very fruitful Agasias, all working at the same time, some idea may be gained of the wealth of Delos and the intensity of artistic production in this island at the close of the II century.—*Bull. Corr. Hell.*, August to October, 1894.

THE ERIPHYLE BY POLYGNOTOS.—In the *Mitth. Arch. Inst. Athen.*, 1894, pp. 335–339, J. Six discusses the *Eriphyle of Polygnotos* (cut). A bronze statuette in Athens (χαλκᾶ 400, pub. in Dumont, *Céramiques de la Grèce propre* II, pl. 35, p. 249) compared with Pausanias X, 29, 7, shows how Eriphyle was represented with her hand under her garment. Paus. X, 30, 6, describes Orpheus as touching some twigs. This is brought into connection with the golden bough, Verg. *Aen.*, VI, 407, which is *longo post tempore visum*, because Orpheus first took it to the lower world.

CHORICIUS OF GAZA AND GREEK SCULPTURES.—In the *Jahrbuch Arch. Inst.* (vol. IX, pp. 167–190), R. Förster publishes with introduction and critical apparatus the Greek text of *The Praxiteles of Choricius* of Gaza. In this rhetorical composition the author supposes that in Sparta at some time all the girls were ill-favored. The oracle declares that this sad state of things will cease if Aphrodite be appeased by a statue. Praxiteles receives an order for the statue, but makes it a likeness of Phryne. The Spartans hesitate about accepting it, and in an assembly a speech is delivered against it. The speech is inter-

esting as a specimen of late rhetoric, and as showing the interest in art which existed at Gaza. Incidentally the statue of Zeus is mentioned as existing at the time of the writer. Several other famous works of art are mentioned, and some interesting examples occur of art criticism about A. D. 500.

ENGRAVED GEMS WITH ARTISTS' NAMES.—In an article in the *Revue Archéologique* (Nov.-Dec., 1894), M. Reinach studies an important class of ancient cut gems, those which bear the names of artists. He calls attention to the fact that this study has been much neglected even since the learned articles by Furtwängler in the *Jahrbuch* for 1888 and 1889. Reinach, through the study of documents unknown to Furtwängler, is able to add to and to rectify the history of a number of these famous gems and to reëstablish in a number of cases their reputation for authenticity. He shows that the cameo signed by Athenion belonged to the Orsini collection as early as the XV century; that the intaglio of Apollonios belonged to the same collection, after being in the hands of a collector named Tigrini; to the same collection belong the youthful Herakles cut by Gnaios, and the cornelian (head of Augustus), as well as the amethyst by Dioskorides, carved with a head which Reinach insists against Furtwängler in regarding as a probable portrait of Mæcenas. The difficulty in regard to the cameo of Epitynchainos is cleared up. The authenticity of the artists' names on the gems signed by Mykonos and Pharnakes, also from the Orsini collection, is affirmed. The famous intaglio signed Polykleitos, and representing Diomedes with the Palladium, the authenticity of which has been disputed by Brunn, Koehler, and Babelon, is shown by texts to be good beyond a doubt, and to have been very famous in the XV century. M. Reinach gives details in regard to the gem signed by Onesimos, showing that this is the only case in which a forger has made a complete confession. The forger in this case was a well-known antiquarian named Dubois, and the affair made quite a stir among rival archæologists.

MUMMY MASKS AND BUSTS.—In the *Archæologischer Anzeiger*, 1894, pp. 178–179 (2 cuts), K. Masner writes of *Mummy-masks and -busts from Upper Egypt*, his remarks being based on a collection of fifty such masks and busts brought by Mr. Theodor Graf from Egypt to Vienna. The earliest of these masks resemble their Egyptian prototypes, though the faces are neither Egyptian nor Greek in type. The second group becomes more and more Greek and takes on more characteristics of portraiture. In the third group the masks become busts, the head being raised and bent forward. At the same time the faces become more evidently portraits.

BURLESQUE VASE PAINTING.—In the *Mitth. Arch. Athen.* (1894, pp. 346–350), A. Koerte publishes (cut) *A Boiotian Vase with Burlesque Representation.* It is in the collection of the Greek Archæological Society at Athens, No. 5815. It is a Krater with (yellowish) red figures. In the middle of the front is a large mortar. At each side is a man holding with one hand his pestle over the mortar. Both men have turned their backs to the mortar, and each is busy scaring off a large goose with his other hand. The men wear masks and wreaths, padded tunics making them look fat, and one wears a phallos. The costume is like that of the Phlyakes of Lower Italy and the terracottas of early Attic comedians. The painter is strongly influenced by Attic art. Other Boiotian vases from Kabirion show no such influence, but represent local sprites masquerading as gods and heroes. These sprites belong to the circle of Dionysos. The vase here published shows how such servants of Dionysos appeared on the Boiotian stage.

THE KYPRIA AND THE TROJAN WAR.—In the *Jahrbuch* (1894, pp. 251–254, two cuts), W. Klein discusses *The Introductory Scene of the Kypria* and the vases *Wiener Vorlegeblätter*, A. 9, E. 11, A. 11, 1, and A. 10, 2. The Trojan war is regarded as the mythical prototype of the Persian war. Athena appears as the patroness of Hellas, Aphrodite as that of Asia.

ARCHÆOLOGICAL SOCIETY IN BERLIN.—In the *Archæologischer Anzeiger* (1894, pp. 180–188) is a report of the July meeting of the Archæological Society in Berlin. E. v. Stern spoke of *Excavations and Discoveries in the Greek Colonies of the Black Sea*, with special reference to early Attic vases. Curtius spoke of the *Central Group of the Frieze of the Parthenon*, explaining the cloth held by the priest as a carpet to be spread for the gods. Pomtow spoke of the *Latest Excavations at Delphi.* Hübner spoke of a *Roman Bell from Tarraco*, with inscription. Adler explained a water-color view of Olympia, and Erman spoke of the danger threatening the temple at Philæ.

ARGOS.—EXCAVATIONS AT THE ARGIVE HERAION.—Dr. Waldstein arrived in Athens in March and began at once the excavations of the American School at the Argive Heraion. Sufficient funds have been secured this year to conduct the excavations on a large scale, and it is expected that they will be brought to a final close at the end of the season.

Dr. Waldstein wrote from Argos on March 28 the following note, published in the N. Y. *Nation* of April 25: "As I write I sit on the walls of the second temple of Hera (of the fifth century B. C.), while the men are massed on the slope below, to the south, where last year we found the first indications of a large building between twenty and

thirty feet beneath the foundation walls of the second temple. As we wish to lose no time this year, Mr. J. C. Hoppin (Harvard, '93), together with our architect, Mr. E. L. Tilton, of New York city, and Mr. T. H. Heermance (Yale, '93), began excavating a week ago, and carried on the work very successfully before my arrival here. The building below the south slope of the second temple promises to be one of the finest of the eleven buildings we have already discovered on this most favorable site. Of the north wall, which is of the best Greek masonry, four courses are standing. We have already followed it up for more than a hundred feet, and have not yet come to the end. The pillar bases in the center are all *in situ*. On one of these last year a drum of the column was still standing, and we have since discovered two others. Here Mr. Hoppin found some well-preserved large fragments of the metopes from the second temple, together with two heads in excellent preservation, one of which (a warrior with a helmet) fits the neck of a fragment of a metope with the greater part of the torso. If our good fortune continues, we shall be able to present fine specimens of metopes of this temple, which is second only to the Parthenon in artistic importance. The grant of the Archæological Institute and (above all) the liberality of Mrs. J. W. Clark, of Pomfret, Conn., enables us to carry this season's work to a termination without the worries of cramped means."

ATHENS.—GERMAN EXCAVATIONS ON THE WEST SLOPE OF THE AKROPOLIS.—The German Archæological Institute commenced in the autumn a series of diggings on the west slope of the Akropolis, between the Areopagus and Pnyx.

The Ἀτλαντίς of New York, for Dec. 8, 1894, states that in these excavations part of a torso of Aphrodite and a headless statuette of an ephebos have been found. Both are of good workmanship.

The Ἀτλαντίς of Jan. 26 states that in the excavations a well was found the mouth of which was closed with a slab. On the slab was a relief representing a quadriga. There was also found a fragmentary pithos with inscription as yet not legible.

FRAGMENTS OF PARTHENON METOPES.—In the Ἐφημερὶς Ἀρχαιολογικὴ (1894, pp. 187–8, pl. 10, 11), K. D. Mylonas publishes *Fragments of Metopes from the south side of the Parthenon*. The fragments belong to metopes 11, 17, 21 and 23 (Michaelis), hitherto known only from Carrey's drawings. Their connection with the metopes was discovered by Prof. W. Malberg, of Dorpat, an article by whom is expected.

RELIEFS FROM THE ILISSOS.—In the Ἐφημερὶς Ἀρχαιολογικὴ (1894, pp. 133–140), A. N. Skias publishes five *Reliefs from the Bed of the Ilissos* (cut; pls. 7, 8). They were found near the so-called Kallirrhoë. The first represents a bearded male figure seated by an altar built of small

stones. His left hand holds a staff. His right hand held perhaps a cup or bowl. His legs, back and left shoulder are draped. At the other side of the altar stand two draped females. The fragmentary inscription is conjecturally read: ὁ δεῖνα ἀν]έθηκεν Ναΐ[ῳ Διΐ]. Zeus Naïos may be identical with Zeus Meilichios. In the second relief, as in the first, the left side is occupied by a seated draped bearded male. Here his seat is a large bearded face with inscription *Acheloios*. Behind the seated figure is a standing person holding a horn of Amaltheia. Of this person little remains. The centre of the relief is occupied by Hermes wearing a tunic. In one hand he holds his wand, in the other an oinœhoë, perhaps to pour into a cup held by the seated figure. At the right of the relief is Herakles clad in the lion's skin, holding his club in his left hand and some round object in his right. The seated figure is probably Zeus. This relief is of Macedonian times, and is better preserved than the first, which is ascribed to the V century B. C. The third relief is ill preserved. Five figures move toward the right; first a draped male, then a draped female (Demeter?) bearing a torch, then Athena, next Nike, and lastly a male torch-bearer. This relief formed part of a larger composition. The two remaining reliefs are on two sides of the same block. Both are badly injured. One represents two hoplites in combat, the other a reclining figure holding his right knee with his right hand. Before him are remains of an upright draped figure.

INSCRIPTIONS.—In the *Mitth. d. k. d. Arch. Inst. Athen.*, 1894 (XIX), pp. 401–402, L. Pollak publishes an *Inscription from Athens*, consisting of a fragmentary list of names—perhaps a list of Ephebi—of about the end of the II century after Christ.

MEETING OF THE GERMAN INSTITUTE.—The Ἀτλαντίς (New York) of Feb. 23 gives a brief summary of the papers read at the last preceding meeting of the German Archæological Institute at Athens. Dörpfeld spoke on the recent excavations and the Enneakrunos, Wiegand on inscriptions found near the Asklepieion, Wolters on the tomb of Sophokles.

DELOS.—The latest excavations under the direction of M. Couve were concentrated upon the largest and richest of the private houses. They all dated from about the same period—the I century B. C. All of them have open courts and show that the description of the Greek houses given by the Vitruvius is not as fantastic as has been supposed. The most remarkable part of these houses is their internal decoration. Beside some charming decorative painting on stucco, there have been found capitals formed of two coupled lion-heads and two bull's-heads; an archaistic relief with a procession of divinities; mutilated heads, showing the influence of sculptors of the IV

century; Roman heads in much better preservation; and finally, the finest piece is a replica of the Diadumenos of Polykleitos, in admirable preservation, much finer than that of Vaison.—*Revue Arch.*, Nov.–Dec., 1894.

ANTIQUITIES TAKEN TO ATHENS.—The Ἀτλαντίς (New York) for Dec. 8, 1894, mentions a wall painting from Delos now in the Central Museum at Athens. The painting is very well preserved. With the painting there were brought to Athens some small female heads or masks intended for wall ornaments and some small bases for the same purpose, the latter being used for the support of statuettes. All these objects are of Roman times.

DELPHI.—A NEW OFFICIAL GRANT.—The French Minister of Public Instruction, M. Poincaré, proposed to the Commission of the Budget, in February, a new credit for the excavations of Delphi on the Budget of 1895. The commission granted the sum of 150,000 francs.—*Chronique*, 1895, No. 6.

INSCRIPTIONS.—The relations of the sovereigns of Pergamon, Syria and Egypt to the sanctuary of Delphi are illustrated by a number of inscriptions discovered by the French during their excavations, and published in the August to the October number of the *Bulletin de Correspondance Hellénique* by M. Couve. These inscriptions show the homage still rendered by the kings and their subjects to the universally recognized moral authority of the sanctuary of Delphi, and on the other hand they show the gratitude of the Delphians for these marks of respect and these benefits conferred. The first inscription is a decree of the city of Delphi regarding privileges which King Sileukos of Syria has asked of Delphi and for the temple of Aphrodite Stratonikis. The decree declares that the sanctuary of the city shall be sacred and inviolable, and at the Pythian games the Theoroi praise King Sileukos. This inscription receives its most complete and exact commentary in the text of the famous treaty between Smyrna and Magnesia, already known. Historically this document is interesting as being a further proof of the liberal policy shown by the Smyrna kings toward the cities of Asia, in the hope of opposing the barrier to Egyptian occupation. M. Couve recalls that Antiochos II, father of Sileukos, was the first benefactor of Smyrna, and that his son merely followed his example. The amicable relations between Delphi and the Syrian kings remained the same under the reign of Antiochos III, as is shown by the two inscriptions published, which is a decree of Delphi in favor of the city of Antioch. It recognizes the sacred and inviolable character of the city of Antioch and of the domain of Zeus Chrysaoreus and of Apollon. It decrees colossal bronze statues both to the people of Antioch and to King Antiochos; these to be placed in

the temple of Apollon. The obscurity of this inscription, in its historic and chronological bearings, leads to a very long commentary. The city of Antioch here mentioned was one of the many cities of this name, and appears to have been situated not far from Stratonikeia. It has left no trace in history. The base of the statue of Antiochos mentioned in the decree has been found, and upon it is inscribed the name of the sculptor of the statue.

The relations of Delphi with Egypt are illustrated by the third inscription, which mentions King Ptolemy II, Philometor. It is a decree in honor of a well-known Egyptian named Seleukos, son of Bythys, who afterwards became governor of Cyprus. The fourth inscription, which relates to Bithynia and to its King Nikomedes (91–74 B. C.), is of special interest, as it mentions detailed facts relating to the organization of the temple. It relates that King Nikomedes and Queen Laodike had favorably received two ambassadors sent from Delphi and had returned certain slaves which were demanded for the use of the sanctuary. In consequence the city of Delphi decrees to crown the king and queen, and to erect to them bronze statues in the sanctuary of Apollon. It is probable that the thirty slaves here mentioned, who filled subordinate offices in the service of the temple, had been kidnapped and carried away to Bithynia. We learn from the inscription that the slaves were ordered to perform the following services: Five to guard the sacred sheep; five for the sacred goats; four apparently for large cattle, and four for the sacred mares, while two or three were set aside for carpentry work; one as a baker; one as a cook; one as a guard of the palaestra, and four or five as domestics.

The article closes with several decrees of proxeny relating to persons, natives of the eastern basin of the Mediterranean, outside of Greece proper.

RECENT EXCAVATIONS.—At a recent meeting of the *Académie des Inscriptions*, M. Homolle communicated the latest results of the French excavations at Delphi. Some more pieces of poetry have been found in the Treasury of the Athenians. One of these, now in eleven fragments, contains musical notation—this time not for the voice, but for an instrument. The words can be restored with tolerable certainty; but the notes are difficult to read because of their great resemblance to one another. The subject of the poem is the birth of Apollon at Delos, his coming to Delphi, and his victory over the serpent with the help of Dionysos. It can be assigned to the II century B. C., by a prayer for Athens and the Romans, with which it concludes. A second Pæan has also been found, which is dated to about the year 340 B. C., by the character of the writing and by the names of the archons mentioned. The poet was a native of Scarphaia, in Lokris;

but his name is lost. Another interesting discovery is that of a sculptured figure with an inscription on the shield which was evidently the name of the artist. Unfortunately all that can now be deciphered is the first four letters of his patronymic, ΚΑΛΛ; but the form of the Λ shows that he was an Argive. The other recent finds include: metrical inscriptions of some length, mentioning works of art dedicated in honor of historical personages; some accounts of the IV century; a decree in favor of Kotys, King of Thrace; several statues of Hellenistic and Roman times; four archaic statues of the same type as the Korai of the Akropolis; fragments of interesting bronzes with *repoussé* ornament, and a Corinthian helmet in perfect preservation.—*Academy*, Nov. 10, 1894; *Revue Arch.*, Oct.–Dec., 1894.

SCULPTURES.—M. Homolle publishes three articles on the discoveries at Delphi in the *Gazette des Beaux-Arts* (December, 1894, and March and April, 1895). They are devoted almost entirely to sculpture. In the first article, after a few remarks on Mycenæan and archaic Oriental antiquities, he takes up in detail the archaic sculptures: (1) An archaic statue of Apollon, which he dates from about 580 B. C.; (2) sculptures of the treasury of Sikyon, which he dates from the same period; (3) and (4) two works of the schools of the islands almost as ancient as the preceding, the first being a sphinx from Naxos and the second a winged Victory of the school of Archermos of Chios. These four works show the Greek school disengaged from Oriental forms and ideas. This progress is emphasized in the frieze of the treasury of the Syphnians, which belongs to the close of the VI century. After some cursory remarks on the treasury of the Athenians, and mentioning that there seemed to be no works found belonging to the V century, B. C., M. Homolle describes a charming group of the IV century, representing three dancing girls around a pier, robed in delicate, almost transparent drapery, arranged in fine and numerous folds. Passing rapidly over some later works, he closes with one of the most recent, but almost one of the most perfect, pieces of sculpture found during the excavations—the statue of Antinous, which is perhaps the most beautiful of all the images of the favorite of Adrian.

The second article contains remarks on the historical importance of some of the figured monuments, and concerns itself with the effect upon our judgment in regard to archaic Greek sculpture of our knowledge that the treasury of the Athenians dates from 490–480. He shows how a number of the sculptures of the Akropolis, which have been dated between 500–510, must now be placed in the same decade—that is, 490–480. He shows also that the painting of vases of the severe style, which have lately been given a rather exaggerated antiquity, should be dated from about 480; that the sculptures of

Ægina cannot belong to the close of the VI century, but must be dated nearer 480 than 490; and that the gables of Olympia cannot possibly, as Mr. Kalkmann thinks, belong to the beginning of the V century.

M. Homolle's third and final article treats of the "Apollon" figures of the treasuries of Sikyon and Siphnos and in general of the Argive-Sikyonian School of Sculpture. What follows is a synopsis.

Statues of Kleobis and Biton.—"The Argives," says Herodotos, "had carved statues of Kleobis and Biton, whom they considered to be the best of men, and dedicated them at Delphi." M. Homolle identifies with these figures two statues of the so-called "Apollon" type, discovered close together to the west of the treasury of the Athenians. They are in fact twin statues to such a degree that the parts of one could be completed from the cast of the other. The similarity is more pronounced than that which would be naturally given by identity of school, and the muscular development supports the idea that they represent athletes; besides this one of these statues is signed by an Argive artist. Their date is about 580 B. C., and they are the first attempts at portraiture in Greek art. Being authentic works of the Argive school, their importance is unique. They are comparable in style to the most ancient metopes of the temple of Selinous, which are generally regarded as dating between 580–560.

The Treasury of Sikyon.—This treasury has metopes the sculptures of which also bear great similarity to the metopes of Selinous, showing the same canon of proportions and the same technical processes, though there is greater skill and greater care of execution shown in the treasury of Sikyon. M. Homolle calls attention to the obvious similarity, also, to the figures on the Corinthian vases. He assigns the beginning of the treasury to the brilliant reign of Kleisthenes of Sikyon (580–570).

Treasury of Siphnos.—Hardly half a century after come the sculptors of the treasury of Siphnos, already fully described in the JOURNAL. They were erected, as Herodotos states, before the Persian war, during the short period of a "boom," which struck Siphnos at the time of the working of its gold mines. The exact period is given by M. Homolle as from 525 to 510 B. C. The differences in the quality and style of different parts of the sculpture indicate a difference of age, but not one of any extent. Although there are great differences on the surface, the methods are found to be very much the same, and if certain figures seem rather modern for the VI century, they are the exceptions. In deciding upon the school to which these sculptures should be attributed, it was natural to turn to the Greek islands; the sculptures were carved in island marble. Prof. Furtwängler attributes the sculptures to the school of Paros, but M. Homolle turns to the

Peloponnesos and attaches them to the same school as the two preceding works, the two statues of "Apollon" and the metopes of Sikyon. In all these cases the elements of comparison are to be found in works that are known to belong to the Peloponnesian school. This theory is supported by an inscription upon one of the four compositions of the frieze, the gigantomachy—which is signed by the artist. The inscription is cut on the shield of one of the giants fighting Apollon and Dionysos. In the name of the artist occurs the telltale Argive Lambda.

M. Homolle concludes his article as follows: "The frieze of Siphnos is of Argive workmanship; it is hardly necessary to call attention to its importance, for it brings down to the close of the VI century the history of this school, the activity of which at the beginning of the same century is shown by the Apollos and metopes of the treasury of Sikyon. Of this school we knew nothing hithertofore, except from texts which were both rare and vague; the material for it consisted of monuments of uncertain provenience and hypothetical attribution. Henceforth we are enabled to study its monuments in hand; we can understand its spirit, define its character and follow its evolutions. The art of the Peloponnesos now takes shape before our eyes and the consequence of this fact can be imagined when we realize that it is one of the earliest schools of Greece, one of the most original and one of the most faithful to its traditions. It radiates over Southern Italy and influences at a decisive moment the art of Attica."

This article is illustrated by: (1) metopes of the treasury of Sikyon, which represents the return of Idas and the Dioskouroi bringing their booty back from Messenia; (2) three figures from the assembly of the gods, the gigantomachy, and the combat of Menelaos and Hektor from the treasury of Siphnos.

ELEUSIS.—INSCRIPTIONS.—In the Ἐφημερὶς Ἀρχαιολογική (1894, pp. 161–186), A. N. Skias publishes thirty-four *Inscriptions from Eleusis*. Most of these are dedications, many of them fragmentary. In 21 the artist's name, Ἀγαθοκλῆς Κηφεισιεύς, and in 22 Σώτας appears. No. 5 appears to be a record of some building, Nos. 7 and 8 fragments of an account. No. 14 consists of eight fragments, one of considerable size, and appears to contain rules concerning the treatment of temple property.

EPIDAUROS.—THE STADION AND A STATUE BY THRASYMEDES.—The Ἀτλαντίς (New York) of Dec. 8, 1894, states that the stadion at Epidauros has been excavated. In shape it was like an amphitheatre, with marble seats. The ἄφοσις or starting-stall is preserved, as is also the goal. The base of a statue was found, which the Ἀτλαντίς of Dec. 15 says was by Thrasymedes, the artist of the chryselephantine statue of Asklepios and other sculptures at Epidauros.

ERETRIA.—AMERICAN EXCAVATIONS.—In a coming number of the JOURNAL we expect to publish an article by Professor Richardson on the Temple of Dionysos, which he discovered at Eretria, and another by Professor Capps on the Theatre at Eretria, especially the *πάροδοι*.

In the meanwhile we here reproduce a letter written by Mr. Capps for the *Nation*, referring also to part of an early report by Professor Richardson published in this JOURNAL, 1894, No. 2, pp. 308–9:

"The short but successful campaign of excavation conducted by the American School at Eretria, during the last three weeks in May, deserves mention in the columns of the *Nation*, not only on account of the actual results obtained, but also to enforce the moral recently laid down by Dr. Robinson in your columns, that a promising site should not be abandoned until everything has been brought to light that may prove valuable to the historian, philologist or archæologist. In the springs of 1891 and 1892 the School had conducted excavations on this site, especially in the theatre, with gratifying results. The field was so promising and so important for Greek history that the director, Prof. Richardson, wisely decided again to undertake excavations there. Since the available funds were limited, he determined to strike for certain definite results, viz., (1) to learn whether the peculiar location of the theatre was to be accounted for by the presence of a sanctuary of Dionysos in its immediate vicinity; (2) whether pre-Persian remains were to be found on the Akropolis; (3) to determine the site of the famous temple of Artemis Amarysia; (4) to lay bare the main street leading to the Akropolis; and (5) to open the large tumulus east of the city. This programme was carried out with the following results.

"The core of the tumulus was formed by a massive stone tower, of which three sides had fallen. No traces of a grave were found. Tentative diggings on the south slope of Kotronis, the site generally selected by topographists for the temple of Artemis, showed incontestably that no temple had ever stood there. Thus one unknown quantity is eliminated from the problem that the discoverer of this temple will have to solve. A trench (fifty feet long and down to the solid rock) that was dug on top of the Akropolis revealed no pre-Persian remains.

"So much for negative results. The less speculative and more serious digging, employing from forty-five to seventy-five men, was done between the theatre and the present village. The first and, as it proved, the most important discovery was made by the men working under the direction of Prof. Phillips, of Marietta. They were searching for the temple of Dionysos, and by the night of the first day had found the foundation of the cella wall. Three courses of the founda-

tions stand in good preservation. Quantities of charred wood and of cinders found inside the temple, and a hard thick layer of calcinated poros on the north and northeast sides, give evidence of how the temple was destroyed, and explain the absence of architectural and sculptural remains in the débris. Only one small marble head of Aphrodite was found. The large massive rectangular structure uncovered in the excavations of 1891, lying east of the temple and south of the theatre, was now seen to be the altar of the god. Nowhere in Greece can one see the group of three structures that belonged to the well-organized worship of Dionysos—temple, altar and theatre—so well preserved as here.

"Unfortunately, the other excavations had to be left unfinished. A long stretch of the ancient street, lined with private houses, was uncovered, but much remains to be done. Doubtless one might find here important data for the construction of the Greek house, for the foundation walls seem to be preserved everywhere. It is especially to be regretted that the work on the theatre could not be finished. This theatre, now famous in the history of the stage controversy, was partly excavated most opportunely in 1891, and at once furnished much aid and comfort to the advocates of both sides of the question. The stage buildings twelve feet above the level of the orchestra, on the strength of which Mr. Gardner contends that the Greek theatre had a high stage; the tunnel leading to the centre of the orchestra, which Dr. Dörpfeld believes to be distinctly in favor of the opposite view; the vaulted passage under the scena, which neither Dörpfeld nor Gardner has explained satisfactorily—these are some of the peculiarities of this theatre about which controversy rages. It is clear that if an answer to these problems is to be found, it must come from the building itself, for excavation has already shown that at least the ground-plan of the structure can be recovered.

"Something was done this year. The foundations of the west part of the scene buildings were uncovered, and a long line of column bases on which once stood choragic inscriptions and tripod columns. The outer wall of the west parodos was excavated throughout its whole length, and the fact was established that this parados, unlike the other, ascended from the level of the orchestra at a very steep grade. It seems at least probable that this parodos was practically closed to the spectators, and that herein we have an explanation of the vaulted passage.

"Much remains to be done on the theatre, and must be done by the Americans if they wish to be looked upon by archæologists as thoroughly competent and conscientious excavators. Dr. Robinson said a good word to this effect about the excavations at the Heraion;

it applies also to Eretria. Dr. Dörpfeld takes his large company of scholars of all nations each year to Eretria to see this theatre, and also to Megalopolis. I can testify that the clean work of the English School contrasted strongly with that of the American, and was noticed and commented on by all. A few years ago we had a first claim on the thousands of tombs, rich in archæological material, some of which Dr. Waldstein opened with marked success. Now the enterprising Greek Archæological Society has undertaken this work on its own account, and a unique opportunity for archæological discovery has passed from our hands. But there is plenty of work left to be done in Eretria. The whole site is teeming with ruins a few feet under the surface. It is earnestly to be hoped that the American School will be able not only to finish the work at Argos, but to continue that at Eretria, so as to leave the latter site as creditable a monument to its archæological activity as the former bids fair to be.

Athens, July 15, 1894. EDWARD CAPPS."

KATANDRITI (NEAR MARATHON.)—MYCENÆAN TOMBS.—The Ἀτλαντίς (New York) for Dec. 8, 1894, states that at Katandriti, near Marathon, ten early tombs have been found containing vases of Mycenæan style, rings, *etc.*, of gold, and pithoi containing human remains.

KOPAÏS.—EXCAVATIONS AT GHA.—MYCENÆAN PALACE.—In the three preceding numbers of the JOURNAL we have noticed the excavations about the lake of Kopaïs. Since then we have received the number of the *Bulletin de Correspondance Hellénique*, in which A. de Ridder gives a full account of the excavations upon the island of Gha. This island has the form of an irregular triangle, or rather that of a pear, extending from east to west, about three kilometers in circumference, and with a superficial area of about two hundred thousand square meters. From every side the ground slopes down, and in certain directions, especially at the north, very abruptly; the lowest portion is toward the east; the highest toward the north, where the palace is situated. On account of its rocky character the greater part of the island is uninhabitable; even where the buildings were situated the earth is rarely as much as a metre in thickness. It was easy with the materials which the ground afforded to compass the island with heavy walls; thus when the Minyans thought it necessary to fortify the island, they surrounded it with a rampart nearly six metres in thickness. There was no occasion for them to call upon the architects from Tiryns. Immense dykes and a series of fortified posts, analogous to the system of defence at Mykenai, bear witness to-day to their skill as architects. The rampart bears a strong resemblance to the walls of Tiryns in the homogeneity of its construction, the similarity and frequency of the abutments, in the size and material used, and

even in the manner in which these immense blocks were fashioned. The island, much larger than the akropoli of Tiryns and Mykenai, had a large number of gates. Strangely enough, the eastern ramp leads to no opening in the wall; the same is the case for the dyke toward the northeast. Wherever communication seemed direct with the outside, there seems to have been an evident intention of avoiding placing a gate; they wished to oblige the assailant to pass as far as possible along the ramparts. Of the four gates, the western leads toward the Kephissos and towards Kopaïs; the northern toward the Kephissos and the ravine of Kokkino; the two others toward the south and

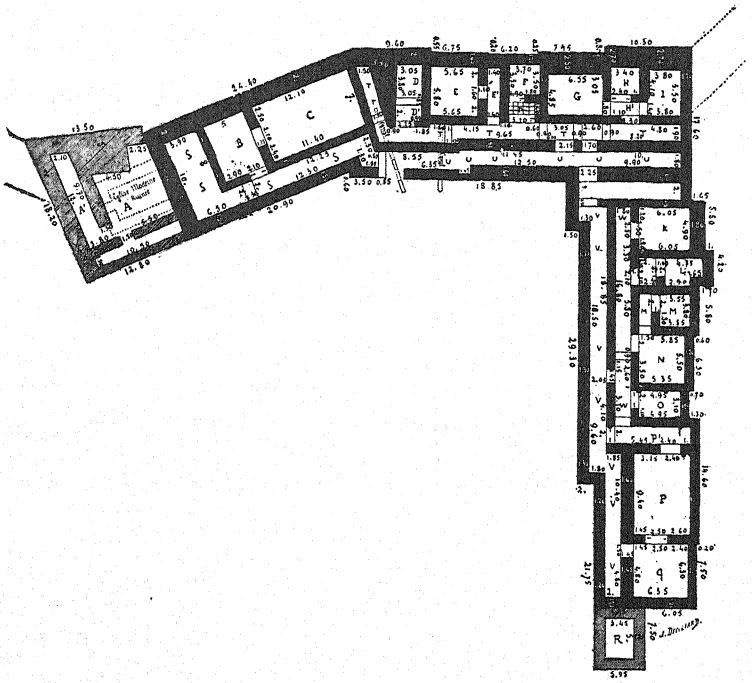


FIG. X.—MYCENÆAN PALACE OF GHA.

southeast toward Akraiphnion. The northern gate measures 5m. .45 in width, and is protected by two towers each 5m. wide; this leads into a small court 6 m. deep and 8.45 m. wide. The southern gate is analogous to the gate of the lions at Mykenai. In each case there is a tower set obliquely to the line of the wall, thus forcing the assailant to leave his right side exposed, and to enter through a long corridor defended on both sides. The gates and walls are minor matters compared with the palace. Ross thought, in 1834, that there were no ruins of buildings, but three years later, in 1837, Urlichs pointed out

the position of different buildings. Subsequent voyagers observed: (1) At the north a construction about 60 m. long and 10 broad; (2) at the west a church, which was utilized as a place of refuge by the Greeks during the War of Independence in 1821; and finally towards the south, some further ruins which they thought belonged to the Middle Ages. The proposed later origin of these structures was due to the presence of mortar and to plaster walls; doubtless also to the fact that the walls were slender in proportion to those of the ramparts. But since the same characters were found at Hissarlik, Tiryns and Mykenai, they may be taken as certain signs of early origin. The plan of the building shows that the palace was composed of two wings, united so as to form a right angle; one follows the general direction of the wall, and without counting the abutments, is 80.21 m. long; the second wing extends toward the interior of the island and is 72.65 m. long. The superficial area of the space inclosed is 1871 sq. m., which is entirely inclosed with walls, with the exception of one point toward the middle of the north wing, where was the necessary entrance. Along the entire length of the inner wall is a narrow corridor which serves as protection for the rooms beyond. Even this device seemed insufficient, since only two rooms opened upon the corridor, the others being still protected by a second corridor. Into several of the rooms one cannot enter without first having passed through an adjoining room. It will be seen from an inspection of the plan that the palace is divided into a series of distinct departments, three of these occurring in the northern wing and two in the southern. The superficial area of the rooms and corridors is very variable; the corridors average 2 m. in width. The largest rooms, as might be supposed, are those which are inaccessible except through an adjoining room. The area of the largest of these is 82.25 sq. m. At either end of the wing is found a tower. If we compare this plan with that of the palaces of Mykenai and Tiryns, we find points of difference as well as resemblance. To be sure the Mycenæan palaces ordinarily formed an irregular quadrilateral, but the conformation of the ground at Gha led to the arrangement of two wings at right angles to each other. As at Mykenai and Tiryns, there is a closer relation between the palace and rampart. Nowhere is this relation closer than in the northern wing of the palace at Gha, which overlooks not only the plain as far as Kopaïs, but the entire island and a large part of the lake. The internal division of the palace is that of an inclosure with a single entrance and with the principal rooms preceded by a vestibule or entrance-room and communicating with each other only by a narrow corridor. The plan is more simple in detail than at Tiryns; there are no staircases; there is but a single story, and no room has more than

a single vestibule; and, finally, the rooms themselves are less spacious. The agreement of the plan of the palace of Gha and that of Mycenæan palaces is found also in the mode of managing materials and in the ornamentation of the rooms. We will study first the character of the walls, then the door-sills and floors, the decoration of interior walls, the discharging canals, and finally the fragments of vases and metals found within the enclosure of the palace.

In the disposition of the walls, the management of the materials of the outer inclosing walls and the inner walls is different. In the case of the ramparts, the method is that called Cyclopean, consisting of the use of large irregular blocks arranged in almost horizontal lines. The insertion of little intercalary stones has almost completely disappeared, having been replaced by a clay mortar of which there are distinct traces. The blocks are of the largest which are found on the island; and the inner wall, in this respect, yields in nothing to the exterior wall. The height of the walls is variable. At the north, where it merges with that of the rampart, it reaches the height of 4.25 m.; nowhere is it less than 1.50 m. The interior inclosing wall is transitional between the preceding method and that of squared blocks. The blocks are considerably smaller, arranged in courses and united by clay mortar; their thickness varies from 2.10 m. to 1.20 m., but their height is uniform, being never over 50 m. The visible portions of these walls are carefully covered with a thick coating of plaster, which is still preserved in parts. At Tiryns we find walls of the same character; they have the same breadth, reach approximately the same height, are united by clay mortar and covered with plaster; the only difference is that the *antae* of sandstone, which are nowhere lacking at Tiryns, are not found in our fortress. Corresponding to these heavy walls we find a substantial pavement. Upon a layer of juxtaposed stones was placed the pavement made of chalk mortar. It may be raised by the pick in irregular plaques of a yellowish white color, and when broken sends forth dust. To give the pavement more solidity, little pebbles are mixed with the chalk; on the other hand the pavement seems not to have been decorated. Almost everywhere traces of fire are apparent; the pliable plaques detached by the pick are often almost black. Sometimes dark stones penetrate the floor covering to a depth of 0.04 m., indicating a fire of some importance. In one of the vestibules eighteen large flags of bluish calcareous stone form the pavement, but this is exceptional. If we compare the pavements of Tiryns and Mykenai, we find the same kind of floor covering and successive layers, the same use of gravel mixed with chalk, the same trace of fire; and at Mykenai, if not at Tiryns, the same stone paving of the vestibule. Between the rooms thus paved there

are thirty-nine openings of variable width; in each of these is a sill made of a single block of a bluish conglomerate not used in the enclosing walls. The thickness of these sills is approximately the same, about .15 m., but the form is very irregular; they do not occupy the entire space between the two ends of the wall, although in breadth they surpass the thickness of the walls. That each of these sills was made for a door is proved by the four hinges of bronze found in different parts of the palace. Similar sills and similar hinges of bronze were found at Tiryns and Mykenai. Whether these rooms had any other decoration, any yellowish white plaster, is difficult to say; only one room and one vestibule preserved any fragments of frescoes; it is probable that the other rooms had merely plastered walls. This vestibule was decorated in a very rich style; it contained a continuous frieze of which it is impossible now to give a restoration, though the ornament included the Mycenæan dart, in which is inscribed a reddish spiral. Decoration of this character occurs neither at Mykenai nor at Tiryns; it appears to be a prototype of the geometric style of ornamentation found in Boiotia studied by Boehlau. The decoration of the room was of a more simple character, consisting of painted bands of different colors. Under two of the door-sills were found water conduits of pointed arch form; the inclination, at first very gentle, increases sharply, and the channel plunges into the ground. Their purpose seems to have been to prevent the rain from injuring the foundation of the walls. Similar water conduits were found at Mykenai and at Tiryns, the only difference being that at Tiryns the terminations occur within the dwelling rooms and are covered by flags of stone.

The metals at Gha are few and used for practical purposes, and not for ornament. We have seen the hinges of bronze, the only objects of this metal found on the island. Lead is found more frequently; it is always in the form of plaques, and appears to have been used for the purpose of attaching the door-jambs to the walls. At Mykenai, Tiryns and Hissarlik much use was made of lead; they made of it large jars to contain grain, but apparently did not employ it in construction. One of these plaques of lead shows traces of iron, but from this we cannot conclude that iron was in current use at this period. An ornamental purpose seems to have been served by the fragments of stucco found in the form of an engaged colonette. Sometimes the projecting portion is in sections, almost square, being simply rounded at the angles. Ordinarily it is in sections, a semi-circle, or, more exactly, the third portion of a circle. Finally, the fragments have been found in the form of pilasters with channelings. Anything like this style of ornamentation has never been found in any Mycenæan palace;

doubtless they preferred frescoes or other decoration. In fact, the only tworooms at Gha which are frescoed are not provided with these colonettes. In the frequent use of this type we see proof of hasty decoration and extreme simplicity. This use of stucco served to hide the uniformity of the walls. Fragments of vases found in the palace are few and without significance; they belong to two groups—cups and bowls. The former class are too common in Mycenæan pottery and in that of Boiotia to require more than mere mention. The bowls have a flat base, are wheel made, and occasionally recall examples found at Tiryns.

Another large building is found situated between the northern and southern gate. The walls are made in the same manner as the inclosing walls of the palace, but more roughly, more rudely, and without plastering. Within these walls there is but little architectural detail. This building is contemporary with the palace. We find here the same kind of pavement, the same plaques of lead, the same colonettes of stucco, the same forms of vases, made of the same earth, turned with the same inexperience, and decorated with the same simplicity. This apparently served the purpose of a soldiers' and servants' hall. Like the palace, it appears to have been built in haste, and to have been inhabited a comparatively short time. From the character of the decoration upon the vases, which approximates a transitional style, we infer that these buildings belonged to the end rather than to the beginning of the Mycenæan period.

In the neighborhood of Gha are found other constructions of the same style; at Orchomenos a tholos; between Orchomenos and Gha, three colossal dykes; and, finally, nearer still—on the heights of the Ptoion—a series of fortified posts. Of these constructions two were already famous in antiquity. The tholos passed as the Treasury of the Minyans, and the dykes were part of the work for drying up the lake undertaken by the Minyans. It is to this people that we consequently attribute the forts of the Ptoion and the constructions at Gha. The island formed for them a large fortified camp from which they could survey the plain and protect the dykes.

We are obliged to set aside the suggestion of Tsoundas, according to whom Mycenæan civilization was originated by lake dwellers, and that consequently the marshes of Kopaïs were selected, so that a city might be built there upon piles. It is quite possible that primitive villages of the lake were built upon the marshy ground, but these could have nothing in common with the advanced construction of the rampart and palace of Gha. Others, like Urlichs, have supposed it to be the ancient Kopai, or, like Curtius, the ancient Orchomenos. These hypotheses have long since been disposed of. More plausible

is the theory that Gha was one of the four towns engulfed by the waters of the lake. Without doubt the akropolis was never inundated, but it has been supposed that the lower town was engulfed; there is, however, nothing to prove that the island ever had a lower town which could be so engulfed; and if the fortifications at Gha are contemporary with the construction of the dykes, it is hardly probable that the waters would have so soon dashed them down and the palaces consequently abandoned. Only a war could have caused the burning and the untimely ruin of the establishment formed upon the island. Of these four legendary towns, three are fixed by tradition; the position of one only, that of Arne, remains uncertain. Two of these towns were ruled over by Athamas. Now, when we observe that Gha is situated in the Athamantian plain, we are disposed to see in this island, if not the centre, at least one of the citadels of Athamas. The island, linked in the closest manner with the fortunes of Orchomenos, was destroyed not by a cataclysm, but by the final assault which subjected the Minyans. Hastily built, it could not resist the attack and perished almost as soon as it was inhabited.

MARATHON (NEAR).—DISCOVERY AT KOUKOUNARI.—Prof. T. D. Seymour, Chairman of the Managing Committee of the American School at Athens, has received details of a discovery by a party from the School which had been excavating at the hamlet of Koukounari, on the slope of Pentelikos, some two or three miles from the field of Marathon, and about eighteen miles from Athens. Prof. R. B. Richardson of the School had charge of the excavations, which were suggested by finding two reliefs of the best period, and seeing some marble blocks built into the walls of a church and adjacent building.

During the first half hour of the work, which lasted several days, there was found a stone bearing an inscription in double columns lying face downward on the sill of a building older than a ruined church on the site of which the excavation was made. The whole left-hand side on the surface is gone. From its style of letters, the orthography, and the mention of an archon, its date can be put at about the middle of the IV century. Apparently it is a sacrificial calendar. From its mention of places a very close connection is established with the plain of Marathon. The number of deities it mentions is remarkable, and from one of the incomplete words upon it the inference is drawn that it stood perhaps on the site of the deme Hekale. The most reasonable construction makes the stone apply to the tetrapolis of the Marathonian neighborhood, a part of its inscription reading: "This sacrifice is offered the second year after the archonship of Euboulos by the inhabitants of the Tetrapolis." Divinities, animals and prices make up a large part of the inscription on the

stone, which Prof. Richardson will describe in the *Journal of Archæology.*

There were also found in the excavation three fragments of reliefs, two of them showing a good period of art. One was part of a seated figure, the other the trunks of three standing ones. Beneath the site of the church, on the surface, were found unfluted columns and other remains of an older and much finer underlying church edifice.—*N. Y. Evening Post,* March 27.

At the moment of going to press we have received Professor Richardson's detailed paper, which confirms the great interest of this inscription. It will be issued in the next number.

MESSENIA.—To the *Mitth. Arch. Inst. Athen.* (1894, pp. 351–367), E. Pernice contributes an article entitled *From Messenia.* Ross, *Reisen und Reiserouten* (pp. 2–4), mentions two inscribed stones that once marked the boundary of Lakonia and Messenia. Both were supposed to be destroyed. One has been found on the heights of Taygetos, half way between Sitsova and Kastania. The fragmentary inscription originally read, Ὅρος Λακεδαίμονι πρὸς Μεσσήνην. It probably marked the boundary settled in A. D. 25. On high ground between the streams Stachteás and Sovoláka lies the village Jánitsa. Here are remains of very early walls. This is the site of the ancient Pheroi, not Kalamata, as has been supposed. The site is now too far from the sea, but the low land is of late formation. Two inscriptions are published, the first has appeared in *Bull. Corr. Hell.*, I, pp. 31, 32, the second is a fragmentary honorary decree. A sketch-map shows the position of Janitsa. Remains of a road from Pharai toward Sparta, south of the Langada pass, are described. This must be the road followed by Telemachos.

LAURION.—A. Kordellar, director of the Greek mining company at Laurion, writes of *Antiquities of Laurion.* He discusses the topography of Laurion and the ancient mining operations. The region nearest Sunion was occupied by wealthy people. Two inscriptions are published. The first belongs to the middle of the IV century B. C., and contains provisions for measuring and preserving an agora presented by one Leukios to the Sunians. The second reads: Ἰανίβηλε ἀρχικαμινευτὰ χαῖρε. A square Hermes of Dionysos, with broken face, is described. P. Wolters adds some remarks and publishes a fragment of a rock-cut inscription.—*Mittheil. Athen.*, 1894, pp. 238–47.

OLYMPIA.—In the *Jahrbuch Arch. Inst.* (1894, pp. 88–114), K. Wernicke gives two chapters of *Olympian Contributions.* He discusses (1) the altars of Olympia, and (2) the history of the Heraion. The early altar of Zeus was near the Heraion. The great altar was erected originally in the V century B. C. Pausanias' account (V, 14 f.) of altars

and sacrifices at Olympia is trustworthy. The sacrifices were performed in two divisions, the first at the oldest and most important altars, and at some later ones in their neighborhood, these being all within the Altis, the second at the remaining altars, chiefly outside the Altis. The arrangement of Pausanias is topographical, following the course of the sacrificial procession. This is made clear by a plan. The great base in the Heraion cannot be the base of the cult-statues, owing to its dimensions. The Heraion was made into a sort of museum in preparation for the visit of the Emperor Nero, and in it were set up statues of his wife, Poppaea, and his mother, Agrippina, corresponding to Olympias and Eurydike. The extant portrait statue found in the Heraion represents Poppaea. The works of art in the Heraion were arranged in their historical order, the oldest next the cult-statues of Hera and Zeus. At the same time the side walls of the niches were removed. These niches may originally have been intended for the maidens who wove the sacred peplos. The arrangement of the statues is shown by a cut. A third chapter of *Olympian Contributions*, entitled *The Proedria and the Hellanodikeon*, is in the next number of the *Jahrbuch*, pp. 127–135. The proedria, or meeting-place of the Hellanodikai is found to be the southern wing of the building to the whole of which the name bouleuterion has hitherto been given. The bouleuterion was only the northern wing. The apse of each wing was an archive-chamber, and in the proedria a treasury. The Hellanodikeon, or dwelling of the Hellanodikai, was the so-called "Südostbau" until the time of Nero. Then that building was prepared for the imperial dwelling, and the Hellanodikai occupied rooms added for their use to the Theokoleon. There was, therefore, at the time of Pausanias no building called Hellanodikeon at Olympia.

A fourth chapter is contributed by Wernicke to the latest issue of the *Jahrbuch* (pp. 191–204). The passage Pausanias VI, 21, 2, and the remains of the *gymnasion* at Olympia are compared with Vitruvius, v 11 (two cuts). Vitruvius describes some particular example of a Greek gymnasium of Roman times. The gymnasion at Olympia is earlier and less elaborate, but corresponds so closely to Vitruvius, description that the various parts can be named. The *Hippodrome* at Olympia is described. The course was four stadia in length. This was passed over in the races six (not twelve) times. The starting stalls (ἄφοσις) have the form of a ship's front of great size. The deck was supported by columns. On the deck was the sign showing when the race began, and here at the prow was the machinery for opening the stalls. The altars in the hippodrome all belonged to deities connected with the races.

KALAURIA—POROS.—TEMPLE OF POSEIDON.—The proposed excavation of the temple of Poseidon, on the island of Kalauria (mod. Poros), referred to in a previous issue, has taken place, and its results will be described in the German *Mittheilungen* (Athens). Dr. Sam. Wide, who had charge of the work, was assisted by another Swedish archæologist, Mr. Kjellberg.

The systematic destruction of everything above ground, which was carried on even until late years, left only the foundations to be uncovered, and the thin coating of earth made improbable the discovery of many antiquities. Considering these drawbacks, the excavations may be regarded as successful.

The temple rose on a stony plateau about 150 m. high in the pine woods of Poros. On the east side, facing Sounion and the open sea, there was found the temenos of the temple, with its peribolos wall having a length of 56 metres and a width of 28 metres. The wall consists of unworked blocks of dark limestone and of *poros* stone. There were two entrances to the enclosure, on the east and south sides, one of which was adorned with a propylæum. Both the temple, which is of Ionic style, and the peribolos, were built in the same age, viz., the VI century B. C.

[Another account speaks of it as Doric, not Ionic. "In the centre of this temenos were some fragments of the walls and pavement of a temple, doubtless a doric distyle *in antis* of the VI century. This is, without doubt, the temple of Poseidon, in which Demosthenes took refuge to die."]

Amongst the other constructions discovered was a stoa of polygonal stones, the pillars of which resemble somewhat the pillars of the Parthenon, and seem to belong to the second part of the V century B. C. Another stoa of later date is thought to have been built by Eumenes II. These stoas were on a second peribolos, built upon a large terrace, reached from the southern door of the peribolos wall of the temple. To these must be added a propylæum leading to the square before the temple; another stoa to the west of this propylæum; a building in form of a trapezium; and a courtyard surrounded by little rooms.

These smaller structures are to the west of the temple. Their use and character cannot yet be ascertained. It is conjectured that the two porticoes and their annexes served for the assemblies of the Amphiktiony of the seven cities and formed the Bouleuterion.

Among the objects found inside the temenos are many fragments of *ex-votos*, of which the majority belong to the VI century and some to the cult of Poseidon. Among them are of special interest a cut

Island stone and a fragment of Mycenæan vase.—*Athenæum*, July 28, Sept. 8, 1894, Jan. 19, 1895; *Revue Arch.*, Oct.–Dec., 1894.

PRASIAI (ATTICA).—MYCENÆAN NECROPOLIS.—The Ἀτλαντίς (New York) for Dec. 8, 1894, states that at that time Mr. Staïs had examined twenty-two prehistoric tombs in the ancient deme of Prasiai. In these were found numerous vases with paintings differing from those hitherto known on Mycenæan vases. Some bronze and copper knives were also found.

A notice in the *Athenæum* of Dec. 8 says: The prehistoric necropolis of Prasiai is being excavated by the Athenian Archæological Society, and from the tombs that have already been opened more than two hundred vases have been obtained, together with two sword-blades and three rings, one of gold and two of silver. The vases have the usual Mycenæan form; but some of them are characterized by decorative designs not hitherto observed in works of art of that period.

RHODOS.—In the *Mittheil. Inst. Athen.* (1894, pp. 299–300), is a report, founded upon one of Dr. Stylianos Saridakis, concerning the rock-cut graves on the northern slope of the Akropolis of Rhodos. In these numerous specimens of pottery, terracottas and beads, besides bones, a gold wreath and a gilded bronze κάλπη. A stone apparently belonging to one of the graves is inscribed:

Ἀρχίνικος Πραΐοφῶντος
Κυμισαλεύς.

The date assigned is the III century B. C.

SAMOTHRAKE.—LIST OF MAGISTRATES.—In the *Mitth. Arch. Inst. Athen.* (1894, pp. 397–402), O. Kern publishes a new *List of Theoroi from Samothrake*, furnished him by N. B. Phardys. This list came originally from the same edifice as those treated by Bermdorf, *Neue Unters. auf Samothrake* (1880), p. 96, sqq.

THEBES.—SCULPTURED BASE FROM THE AGORA.—The Ἀτλαντίς (New York) of Jan. 26, states that in the agora at Thebes a four-sided base had been found. The front has a relief representing a fox. The relief of the back represents a winged serpent with two-clawed feet. The work is ascribed to Roman times. This base originally stood upon another base.

THERA.—TESTAMENT OF EPIKTETA.—In the Ἐφημερὶς Ἀρχαιολογική (1894, pp. 141–148), Th. Homolle writes on *The Date of the Testament of Epikteta.* Boeck (C. I. G., 2448) showed that this inscription belonged to Thera, and assigned it to the III or II century B. C. Ricci (*Mon. Antichi*, II, 1894) assigns it to the first quarter of the II century. Comparison with inscriptions found at Delos, three of which are here published, shows that the opinions of these scholars are correct, and fixes the

date between 210 and 195 B. C., on account of the occurrence of the same proper names in the inscriptions.

THESPIAI. — FRAGMENTS OF A HELLENISTIC SARCOPHAGUS. — During the course of the excavations of the French School at Thespiai, in 1890, the fragments of a sarcophagus of unusual interest were found. They are now in the National Museum at Athens. The main subject of its decoration is the labors of Herakles. Three out of the four sides are occupied by episodes from his labors. The fourth and one of the main sides was probably occupied by two sphinxes walking towards each other. One of these sphinxes has been partially preserved; it has a lion's body and spread wings, and does not differ much from sphinxes found upon numerous sarcophagi. Five only of the labors of Herakles found place on this sarcophagus. On the main front is Herakles and the boar of Erymanthos, Herakles and Antaios, Herakles and the Amazon Hippolyta; on the left side is Herakles and Kerberos, and on the right Herakles and the Hydra. The reliefs are in extremely fragmentary condition. The sculptor is inspired in his compositions by models of the V and IV centuries B. C. The composition is in every case simple and classical, quite different from the confused compositions of the Roman period. The low relief, which is employed throughout, completes the proof that we have here not a work of Roman art, but one of the very few sarcophagi of Greek art, certainly not later than the Hellenistic period.—*Bull. Corr. Hell.*, August–October, 1894.

Sculpture by Euthykrates—In the *Jahrbuch Arch. Inst.* (1894, pp. 165–6), W. Klein writes on *The Thespiadae.* In Plin. N. H., 34, 7, the Bamberg MS. reads *itaque optume expressit* [Euthycrates] *Herculem Delphis et Alexandrum Thespis venatorem et proelium equestre, etc.* Other MSS. have *thespiadas* between *et* and *proelium.* Euthykrates seems, then, to have made a group of Muses also for Thespia.

BYZANTINE ART AND ANTIQUITIES.

BYZANTINE SEALS.—M. Schlumberger publishes in the *Revue des Études Grecques* (July–December, 1894), the third in his series of articles on inedited Byzantine seals, the former series having been published in the same review for 1889 and 1891. A reproduction is given of every seal. They vary in character and in period and represent every variety of ecclesiastical and civil dignitaries of the empire, such as patriarchs, bishops, metropolitans, archbishops, monasteries, emperors, members of the royal family, and such dignitaries as silentiaries, spatharii, logothetes, curopalates, turmarchs, strators, vestiarchs, *etc.*

BYZANTINE DOMINATION IN AFRICA. — M. Diehl publishes in the *Byzantinische Zeitschrift* (1895, No. 1) a paper entitled *Études sur l'histoire de la domination Byzantine en Afrique.* It deals with the relations between the Byzantine government and the native populations, and is a detached fragment from an extensive memoir, the manuscript of which has lately been crowned by the French Academy and which is soon to be published.

LEO AND ALEXANDER, EMPERORS OF BYZANTIUM. — Professor Lambros calls attention to a Byzantine inscription of the year 895 A. D. This inscription shows that in this year, the ninth after the death of Basil the Macedonian, Alexander still retained his full rights as co-emperor with his brother Leo. It is well known how Leo ignored his brother in all matters of government, and how Alexander was passive under the treatment. It had not yet been ascertained how long the name of Alexander was allowed to be coupled with that of his brother, but a second inscription here published would seem to show that the year 904 was the last in which Alexander's name appears with his brother's.—*Byzant. Zeitschrift*, 1895, No. 1.

BYZANTINE ILLUMINATIONS.—Mr. Kirpicnikov has an article in the *Byzantinische Zeitschrift* (1895, No. 1), in which he makes a careful study of two Byzantine illuminated manuscriptions of the homilies for the festivals of the Virgin by the monk Jacob of Kokkinobaphos. One copy is in the National Library in Paris (No. 1208), the other is in the Vatican (No. 1162). They have attracted much attention since the time of Agincourt, having been illustrated notably by Kondakov, Bordier and Rohault de Fleury. The present article has for its object to correct the errors of Bordier and Kondakov. It is illustrated by a number of interesting cuts, which show the artistic beauty and interest of these illuminations. The corrections relate partly to the translation of the descriptive titles of the illuminations, partly to the identification of subjects and figures.

PRESERVATION OF THE GREEK RITE IN SOUTHERN ITALY AND BYZANTINE MONASTERIES.—M. Gay gives a list of the Greek Basilian monasteries in Calabria and the Terra d'Otranto which he has been able to gather from the *Collectorie*, or accounts of tax collectors of the kingdom of Naples charged with collecting the tithes for the Roman Church. In enumerating the ecclesiastics who have paid certain sums into their hands, the tax collectors name separately in several dioceses, "Clerici Latini" and the "Clerici Greci." They indicate places where they reside a "prothopapa," and name the clerks of such and such a "prothopapatus." Elsewhere monasteries are indicated expressly as belonging to the order of St. Basil—"Ordinis Sancti Basilii." The notes which are here utilized are taken from the ac-

count of the years 1326–28 for Calabria, and from those of the year 1373 for the Terra d'Otranto. Of course no complete list of Greek monasteries can be expected in such notes. For the list of monasteries that M. Gay has drawn up we refer to his paper.

CONSTANTINOPLE.—FOUNDATION OF A RUSSIAN ARCHÆOLOGICAL INSTITUTE OF BYZANTINE STUDIES.—The Russian government has decided upon the foundation of a Russian Archæological Institute in Constantinople. Its object will be to forward the scientific researches of Russian scholars in the realm of the antiquities and history of Greece, Asia Minor, and in fact the entire Byzantine field. The administration of this school is in charge of the Russian embassy. Its personnel will consist of a director, a secretary and a body of students. The government gives the school a yearly grant of 1200 rubles in gold. It is said that the director will be Th. Uspenskij, professor in the University of Odessa. The opening of the institute was to take place on January 15.—*Byzantinische Zeitschrift*, 1895, No. 1.

IMPERIAL MONOGRAMS IN ST. SERGIUS.—Mr. Swainson, joint author of the recent work on St. Sophia, has a note in the *Byzantinische Zeitschrift* (1895, No. 1) reproducing and explaining some monograms on the capitals of the church of St. Sergius. The capitals of some of the columns on both the ground and gynæceum level have sculptured monograms, and on the frieze of the lower border runs a long inscription which is given in Salzenberg's great work. The monograms are similar to those on the capitals of St. Sophia, which were deciphered by MM. Curtis and Aristarches.

Nos. 1–10 can be read "of Justinian;" they are similar to those in St. Sophia, to others on the capitals of St. Irene, *etc.* Nos. 11–12 bear the monogram "of Theodora." Nos. 13–21 bear the monogram "of the king," of which examples can be found on the capitals of St. Sophia. As the church of St. Sergius was probably built by Justinian before the death of his uncle, Justinian I, this may account for the absence of the title "Augusta," as applied to Theodora, which does occur on the monograms of St. Sophia, built when Justinian reigned supreme.

DAPHNION.—BYZANTINE MOSAICS.—In the Ἐφημερὶς Ἀρχαιολογική (1894, pp. 149–162), G. Millet writes again of the *Mosaics of Daphnion* (see JOURNAL, IX, p. 575), and publishes one representing the birth of the Virgin (pl. 9). St. Anna reclines on a couch, the legs of which are nearly covered by a rich curtain. Behind her is a servant with a long-handled fan. Two other servants bring food—fruit and (apparently) eggs. In the foreground a nurse and a maid are bathing the new-born child. In the gold background is the inscription, ἡ γέννησις τῆς θεοτόκου, the last word abbreviated. The style resembles that of the crucifixion. Other representations of the birth of the Virgin are

discussed, and this mosaic is assigned to the first years of the XI century. It seems to show the influence of ancient works of art, and is remarkable among works of this period for its delicacy and grace.

DORYLAION.—In the *Mittheil. Arch. Inst. Athen.* (1894, pp. 301–334), Th. Preger and F. Noack write of the ancient *Dorylaion*. The ancient city lay on a hill near Eski-Schekir, by the river Tymbers (now Pursak), not, however, in the present village. The thermae were on the further (southern) side of the river. The later Dorylaion, founded by Manuel I, commenced in 1175, was on the site of the modern village by the Anatolian railway. Remains of the thermae, of a stoa, an arch and several other ancient buildings are visible. Sixteen inscriptions and five grave-reliefs from this region and one grave relief from Gediz (Phrygia Epiktetos) are published (six cuts). The inscriptions are of Roman times, chiefly honorary or sepulchral. Three are dedications to Ζεὺς Βροντῶν, one to Poseidon, one to the river-god Hermus. The gravestones represent doors or panels sometimes surmounted by gables. On the doors are reliefs representing the tools of the trade of the deceased—alabastra, keys, work-baskets, *etc.*

IKONION.—A BYZANTINE INSCRIPTION.—M. Cumont publishes a funerary inscription of Ikonion, which had already been imperfectly given in Sterrett (*An Epigraphical Journey through Asia Minor*). It shows that on November 1st, 1297, a certain Michael Komnenos was dead. He calls himself the son of John and the grandson of another John Komnenos. This funerary inscription shows not only that he was buried in 1297 at Ikonion, when this city was in the power of the Seldjuk Mohammedans, but that he also had taken the Mohammedan title of Emir. M. Cumont shows the interest that this inscription has, giving us a trace of one of the last members of the imperial Byzantine dynasty of Trebizond. He shows that this Michael was a son of a John, who was forced to become a monk, and was himself a son of John Axouchos, who was sovereign of Trebizond between 1235–1238, and whose grandfather was the Manuel Komnenos killed by Isaac Angelus, Emperor of Byzantium. The writer explains what seems to be peculiar in the residence of a Christian prince at a Mohammedan court, by showing that the Christian princes of Trebizond were allied by marriage to the Seldjuk Sultans, who were also their suzerains. It was therefore natural, when Michael's father was imprisoned in a cloister and he himself obliged to flee, he should have sought refuge with the ally and parent of his family, and should have been received with honor and given a Mohammedan title.

KIEF.—BYZANTINE TOMB.—There has recently been found at Kief the tomb of a woman which dates probably from the second half of the X century. The contents consist of two fibulas of gilt bronze in the form

of tortoise shells, a pair of silver earrings, a silver fibula, a necklace of beads of cornelian, rock crystal, glass, silver and amber, a cross and coins that originally hung from the necklace. These coins bear the name of Romanus I, Constantine X, Stephen and Constantine; they were cast between 928 and 944. The two fibulas of gilt bronze were certainly imported from Scandinavia, for they belong to a type of objects characteristic in Sweden and Denmark of the period of the Vikings. Only one other of this type had been found thus far at Kief, and this kind of decoration is found only in the countries into which the Northmen penetrated. The earrings, the silver fibula, the necklace beads and the small cross are decorations that are often found in the Slavic kurgans of the pagan period. This tomb, discovered on the hill upon which the Varangian askold and Dir, and afterwards Olaf and Igor established themselves, contains, therefore, archæological objects produced by the three influences which united in the formation of Russia.—*Revue Arch.*, 1894.

ITALY.

MANTOVA.—ISABELLA D'ESTE AND THE DISCOVERY OF FRESCOES BY CORREGGIO.—Under the title *Isabella d'Este et les artistes de son temps*, that indefatigable and fascinating writer, Charles Yriarte attempts to reconstruct the personality of this famous princess, daughter of Hercules of Este, Duke of Ferrara and of Eleonora of Aragon. At sixteen she married the great condottiere, the generous and noble ruler, Giovanni Francesco Gonzaga Marquis of Mantua. Here she lived for half a century, and here she became one of the most discriminating, fervent and active patrons of the greatest Italian artists of her day. It is this side of her personality which Yriarte studies with a view to making clear her influence upon the development of Renaissance art. First come the portraits of her by Leonardo da Vinci, Cristoforo Romano, Titian, Giovanni Santi and Francia—of which the last two have disappeared. Then follows a description of the portraits of her husband, Giovanni Francesco Gonzaga, interwoven with interesting personal character sketches.—*Gazette des Beaux Arts*, Jan., 1895.

In a second article M. Yriarte studies the traces of Isabella of Este in the Castel Vecchio at Mantua. Isabella, after becoming Marchioness of Mantua, changed her dwelling three times, removing in every case the works of art and curiosity of which she was especially fond. During twenty years she lived in the Castel Vecchio. When her son became Marquis he gave her in exchange for her apartments in the annex to the old palace a vast apartment called Paradiso, especially constructed for her in the Reggia or modern palace, where she ended her days in 1539. But before taking up her abode in this

second apartment she remained for a while in the Corte vecchio of the Bonnacolsi Palace. Her apartment in the old palace was called by her the "Studiolo." For a long time it had been abandoned and practically unknown. In one of its rooms, the library, there remains in the hexogonal vault a charming decoration of cupids which has apparently escaped the attention of art critics. M. Yriarte recognizes in them a youthful work by Correggio, full of charm and softness. The style is so characteristic of the master that there seems to be no doubt in regard to the attribution. It is known that Correggio came to Mantua in 1512, at the age of eighteen, with his protector, Count Manfredi, Lord of Correggio. Here he studied the works of Mantegna, Lorenzo Costa and Leon Bruno. He especially came under the influence of the latter painter, who had decorated a room immediately adjacent to this library. Unfortunately, this work by Bruno was destroyed by Giulio Romano when this painter received full liberty to renew the decoration of the palace.—*Gazette des Beaux arts*, March, 1895.

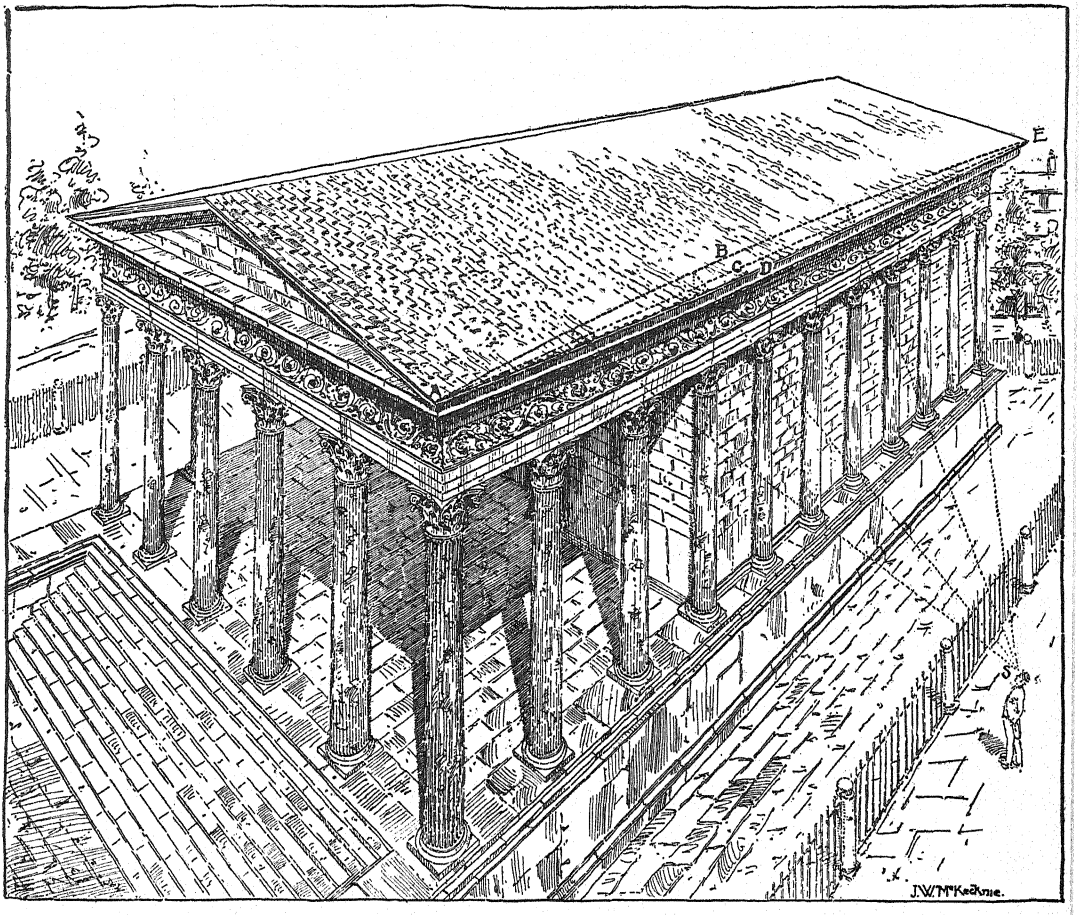
Although a small fragment of the cupola has fallen, the medallions by Correggio are intact. The old fourteenth-century fortress of Mantua, in which the "Studiolo" is situated, was from 1708 to 1866 occupied by the Austrians, who allowed nobody to enter it. The "Studiolo" was afterwards the repository of the archives of the town, which so choked it up that access was almost impossible. The Italian Government, with its usual interest in art, facilitated the researches of M. Yriarte, and he succeeded in examining the frescoes, freed from the dust of centuries, and in photographing them. Reproductions from these photographs are given in the *Gazette*.

PALERMO.—MOSAICS OF THE CAPELLA PALATINA.—A Russian archæologist, A. Pavlowsky, has made in the *Revue Archéologique* (1894) an elaborate and careful study of the mosaic decoration of this chapel, with a view to ascertaining whether it is executed according to a system in which each part had its significance, and bore a relation to a general scheme. He takes occasion to trace the history of the systematic use of painting in the service of religion, beginning with the fifth century, especially in monuments, in Nola, Rome, Ravenna, Constantinople and in a number of Greek monuments. He concludes that a decoration of this chapel had for its object to represent the history of the church in its most important episodes, and its most zealous members, beginning in the dome by the representation of the glory of Christ in heaven, and ending with that of his glory on earth at the time of the triumph of the elect after the Last Judgment. The writer makes extensive use of analogous cycles of Mosaic and painted decoration of the Middle Ages, both in the East and West, and his treatment is an

advance on previous studies of Christian iconography. He closes by saying: "Thus the Palatine Chapel may be considered as a perfect type of the decorative system of the greater part of Byzantine and Byzantino-Russian Churches."

A. L. FROTHINGHAM, JR.

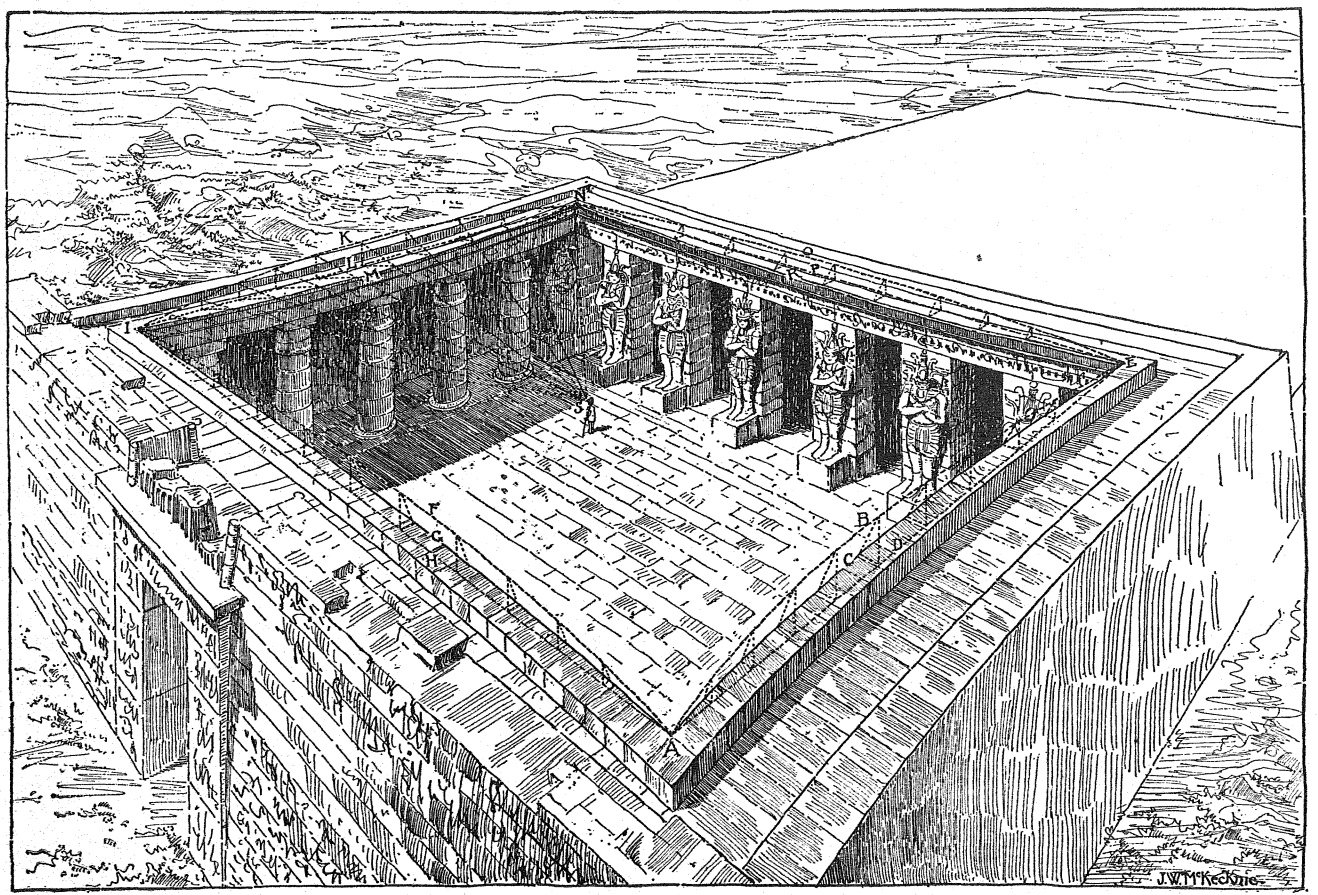
PRINCETON,
April, 1895.



BIRD'S-EYE VIEW OF THE MAISON CARRÉE AT NIMES.

DRAWN BY J. W. MCKECKNIE.

(Straight dotted lines show deflection of cornice: curved dotted line shows optical effect of cornice curve.)



BIRD'S-EYE VIEW OF THE INNER TEMPLE COURT AT MEDINET-HABOU.

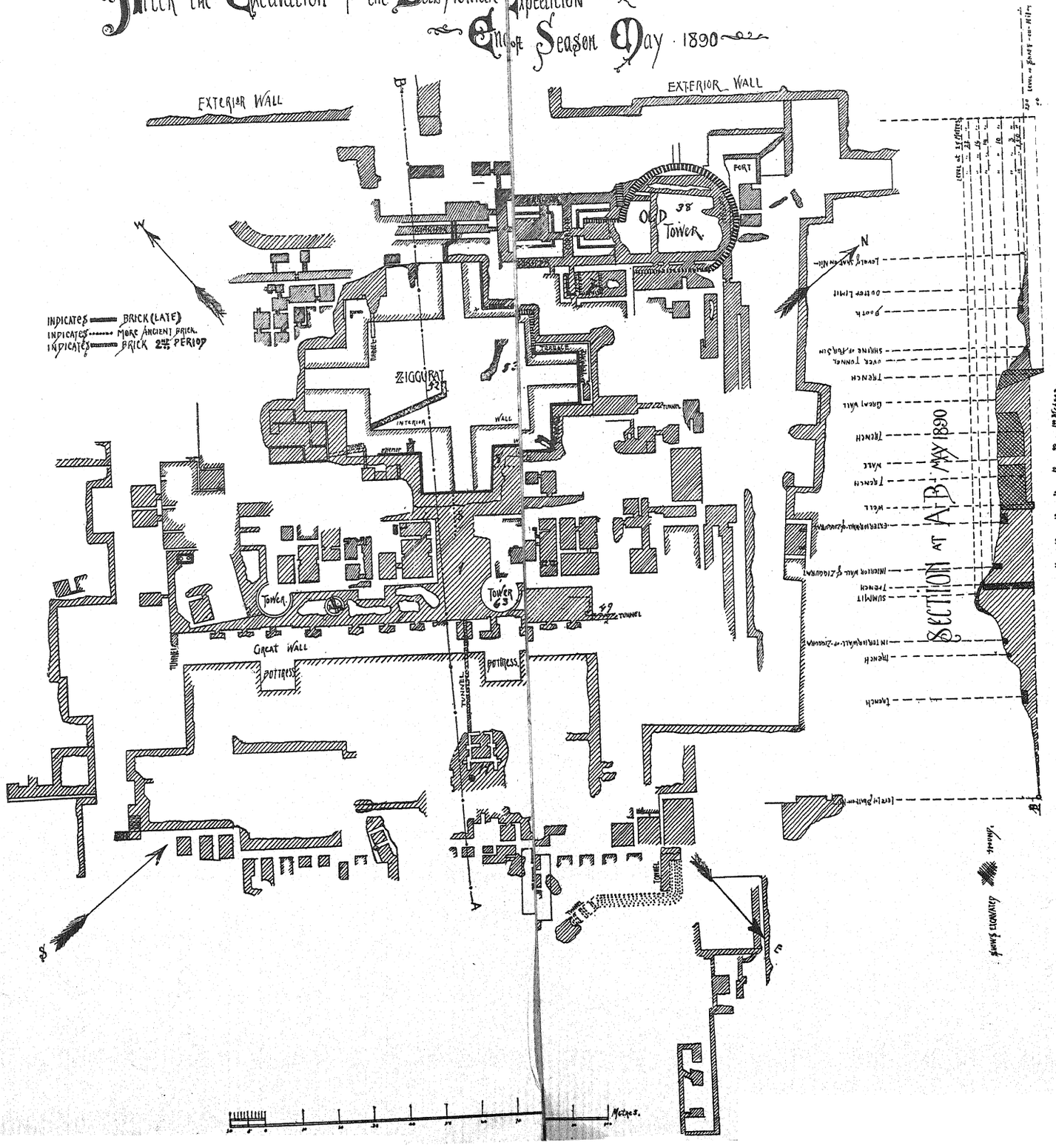
DRAWN BY J. W. MCKECKNIE.

(Straight dotted lines show curved deflections of cornices: curved dotted lines show optical effect of cornice curves from different points of view.)

Plan of Temple of Bel, at Nippur

After the Excavation of the Babylonian Expedition

End of Season May 1890

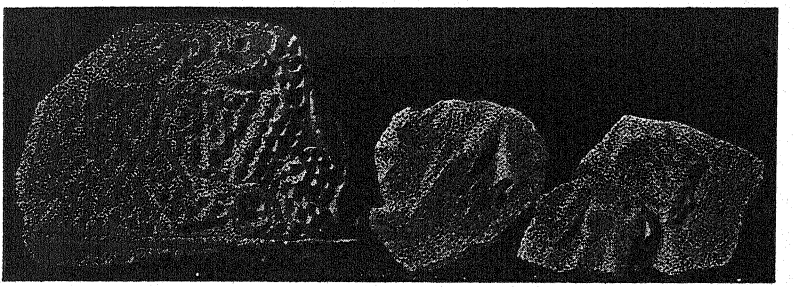




RAISED MAP OF THE FIRST YEAR'S EXCAVATIONS AT NIPPUR.

FROM DR. HILPRECHT'S REPORT "THE BABYLONIAN EXPEDITION," VOL. I.

(The Roman Numbers indicate places where excavations were made; the Arabic, the height of the mounds, in metres above present level of canal bed. About five metres should be added to obtain actual height above plain. III is the Temple-mound Ekur. II is the wall, Nimit-Ma[illegible]uk.)



I. MORTAR AND INSCRIBED BAS-RELIEFS OF PERIOD OF BUR-SIN, C. 2400 B. C.



II. EARLY BABYLONIAN AND LATE GREEK TERRACOTTA FIGURINES FOUND IN TEMPLE OF BEL.

AMERICAN
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SOME EARLY ITALIAN PICTURES IN THE JARVES COLLECTION OF THE YALE SCHOOL OF FINE ARTS AT NEW HAVEN.

[PLATES VI–XII.]

The main object of the following notes is to call the attention of specialists to several rare examples of early Italian painting in the Jarves collection at New Haven, which have not as yet been subjected to close critical analysis, and to show the relative importance of the collection and the representative quality of its more important examples.[1] The notes are written in a spirit of inquiry and with no wish to discredit the judgments of previous students, least of all those of Mr. James Jackson Jarves, to whose taste and enterprise we owe the collection, which through the earnest and far-seeing efforts of Professor John F. Weir was procured for Yale University, where it is permanently and worthily housed and conserved.[1]

The history of the collection, which was begun by Mr. Jarves about thirty-seven years ago and continued through a considerable period, is given in the careful and interesting manual published by Yale College in 1868, compiled by Mr. Russell Sturgis, who supplies an introduction and biographical notices, with

[1] Thanks are due to Professor Weir for permission to photograph a few of the pictures.

measurements, and, in most cases, quite full descriptions of the pictures.[2]

The catalogue contains 119 numbers, of which 115 designate pictures attributed to Italian masters. One Flemish Madonna (No. 121), a "Mater Dolorosa" of the school of Bologna, and several copies of good quality have been, I believe, the only additions to the collection. A few pictures originally belonging to Mr. Jarves are now loaned to the Boston Museum of the Fine Arts by his executors.[3] I shall review the collection according to schools, but not always in chronological order.

PRE-GIOTTESQUE PICTURES.—The first ten numbers of the catalogue designate pictures assigned to unknown painters of the XI, XII and XIII centuries. With the exception of No. 10, a feeble Madonna and Child of later Byzantine derivation, and No. 5, which is considered below as probably of the school of Orcagna, all these are genuine, but in no case significant, specimens of pre-Giottesque art.

The small panel of St. George killing the dragon (No. 6), in

[2] The catalogue contains also prefatory remarks by Mr. Jarves and brief comments in the form of letters from Rio, Eastlake, Messrs. T. A. Trollope and C. C. Black of London, Signor Bucci of Florence, and Mr. Louis Thies, extracted in condensed form from the catalogue of 1860, compiled for the first exhibition of the collection, which was held in the Derby Gallery, 625 Broadway, New York. This catalogue contained 143 numbers, of which some belonged to pictures which are not included in the present collection. A catalogue was prepared in 1863 for the exhibition of the pictures at the Historical Society's Building in New York, and contained 134 numbers. I may also refer the reader to Mr. Jarves's "Art Studies," in which a large number of the New Haven pictures are reproduced in outline engraving. (Art Studies. The "Old Masters" of Italy: Painting. Copperplate Illustrations. By James Jackson Jarves. N. Y., Derby and Jackson, 1861. London, Sampson, Low, Son & Co., 47 Ludgate Hill.) The following numbers from the present catalogue (*Manual of the Jarves Collection of Early Italian Pictures deposited in the Gallery of the Yale School of the Fine Arts, etc.* By RUSSELL STURGIS, Jr. *New Haven: Published by Yale College, 1868*) are engraved in the "Art Studies": Nos. 5, 6, 7 (detail), 9, 11, 12, 13 (detail), 14 (detail), 15, 16, 17, 19, 20, 22, 23 (detail), 24 (detail), 25, 26, 32, 35, 39, 42, 49 (detail), 50, 51, 60, 63 (detail), 64, 67, 68, 72, 74, 80, 81 (head), 86, 89, 94, 97 and 114; also a Madonna, *etc.*, with donor, ascribed to D. Ghirlandajo, an Annunciation, ascribed to Lorenzo di Credi, and a "Holy Family," ascribed to Leonardo da Vinci, which are not in the present collection. At the time of the purchase of the pictures for Yale University (about 1870) there was considerable discussion of the collection in the periodical press.

[3] No. 18, "Timoteo della Vite," Madonna and Saints, attributed by Dr. Bode to Pacchiarotto; No. 19, "Tibaldeo di Pellegrino;" No. 20, "School of Raphael," and also Nos. 13, 14, 15, 16 and 21.

dull and dry tones and with slightly gold-shot draperies, though perfunctory and feeble, is at least distinctly characteristic of Byzantine technique, of which a very small divided triptych of five compositions (Nos. 7, 8, 9) is a more interesting although still insignificant example. The "Miraculous Apparition of Saints Mercurius and Katherine" (No. 9) is perhaps the best preserved portion of it. The feeling for motion, the restlessness of the draperies, the long proportions of the figures and the unformulated treatment of the landscape, offer distinctive notes of an almost miniature-like style, which should render the discovery of its period and derivation easy for the expert in this field. The "Transfiguration" illustrates that almost finically dainty and symmetrical arrangement which is conserved by Duccio (National Gallery, No. 1330), and which survived the many changes in Italian painting down even to the serious and too little appreciated Savoldo (Uffizi, No. 645). The other unascribed pre-Giottesque pictures in New Haven, though of some iconographical interest, have little quality as art; they are mainly of debased XIII century work, the worst defects and mannerisms of which are manifest in the first example in the gallery to which a definite authorship is assigned, a "Crucifix" ascribed to Giunta (No. 11), resembling a panel of the Florentine Academy given to Bonaventura Berlinghieri (No. 101, Catalogue of 1893).

A large oblong (No. 12) of seven compositions might be classed in the same category with the above, if it were worth while to dispute its attribution to Margaritone of Arezzo. Much more interesting is a "Madonna and Child" between SS. John the Baptist and James and SS. Peter and Francis of Assisi (No. 13), seemingly much repainted, and hung so high as to preclude close examination. It is of XIII century art and not characteristic of Cimabue, to whom it is ascribed. The dull "playing card" ornamentation of the Madonna's throne recalls rather Margaritone and his tribe than the more gifted Florentine. The interesting types of the figures are of quite other and seemingly an earlier tradition.

A small panel of two compositions, the "Crucifixion" and the "Madonna and Child" (No. 14), is incorrectly ascribed to Duccio, though it is related to Duccio in style, and is probably by a

contemporary. There is good color quality in single tones and considerable naturalness and feeling in the Madonna; but the awkward angels, the exaggerated high lights and the general weakness of the execution, refute the catalogue ascription. There are several small panels of a similar style in the "Sala del Taddeo Bartoli" in the gallery of Perugia (Catalogue 1887, Nos. 13 and 16). There are other interesting minor examples of the *milieu* of Duccio, some of very high art quality, both in Sienna and Perugia. In the Bryan collection at the New York Historical Society a small Crucifixion attributed to Buffalmaco (No. 189), will introduce the American student to a technique and a composition so close to Duccio's as to be quite representative of the school in its minor examples. It is probably by an immediate predecessor, to judge by the comparative lack of refinement in the treatment of the nude. The grouping is, in one passage, that of the fainting Virgin, quite identical with that of Duccio in the Crucifixion of his great Sienna altar-piece.

GIOTTESQUE PICTURES.—It is evident to the lover of XIV century art, on entering the Jarves collection, that whatever be the attributions given to its "Giottesque" panels, there are a number which embody the characteristic qualities of Florentine Gothic panel-painting. My conclusions as to their authorship are in many cases destructive of the gallery ascriptions, though I have seldom any better ones to offer.

There are twenty examples of so-called Giottesque painting in the Jarves collection. Of these, No. 16 is too much repainted to be characteristic, even if it be an original, and No. 21 is probably spurious. The others are genuine, but a few are too insignificant to call for comment.

To Giotto himself is attributed an important "Entombment" (No. 17), which is unfortunately a complete ruin. It does not rise to the grandly passionate grief of the Arena masterpiece, but has been an important example of a serious and early follower. The piece cannot be analyzed technically in its present condition. Another panel attributed to Giotto in New Haven is a small and well-preserved "Crucifixion," probably the gable of an altar-piece (No. 18, hung very high). The dry handling and the comparative lack of breadth in the draperies indicate conclusively a later authorship.

Earlier than either of the above, and possibly by Taddeo Gaddi, to whom it is attributed, is a small "Vision of St. Dominic" (No. 20), quite representative of the vigor and directness of the better Giotteschi. It is almost too cold in coloring for either Giotto or Taddeo Gaddi, but the draperies and the action are first-rate. In the early tradition again, and by some one working under Giotto's direct influence, is a small tabernacle picture of the Madonna and Child, attended by four saints, of charming quality, attributed to Giottino (No. 31). A small "Trinity," attributed to Puccio Capanna, is of the same general character, but is quite ruined (No. 27).

An important "Christ and the Virgin Enthroned" (No. 5), catalogued as of the beginning of the XIII century, is an interesting example, I believe, of an Orcagnesque decadence. The types, the treatment of the draperies, and the redundance of ornamental accessories, recall certain panels attributed to Orcagna, such as the St. Zenobius of the Florence Duomo and others; but here all the greatness of Orcagna is lost in the attempted realization of a weakly coloristic ideal. It is probably of the school of Orcagna, and for all its lack of early vigor, is a picture of great interest.[4]

There are two sets of panels of saints in the Jarves collection ascribed to Orcagna himself. Of these the "St. John the Baptist" and the "St. Peter" (Nos. 25 and 26), are darkened and badly hung, and while strong, sturdy and serious enough for a more direct Orcagnesque derivation than No. 5, above mentioned, are rather too coarse for Andrea's own hand. Nos. 23 and 24, "St. Augustine and St. Lucia," and "St. Dominic and St. Agnes," respectively, are weaker, but, being in better preservation, are perhaps more interesting. The distinctly individual technique is, I believe, that of an altar-piece in Santa Croce at Florence, in the chapel to the left of the high altar; sharp, clear, precise in drawing, with good color in single tones, but pallid and without fusion, with an over-elaboration of ornament and with rather painfully diminutive figures. An "Annunciation" of rather perfunctory quality, given to Pietro Cavallini (No. 19), seems evidently a work of the last half of the XIV century.

[4] It is described and engraved in FUMAGALLI, *Museo di Pittura e Scultura delle Gallerie d'Europa*, vol. XIII.

Less closely connected with Florence than those I have mentioned, and with some Siennese affectation, though heavy and distinctly in the Florentine tradition, is a large triptych (No. 22) of considerable decorative quality and in good preservation. It recalls in the types and in feeling the panel of the Florence Academy which was the joint work of Spinello, Jacopo da Casentino and Lorenzo di Niccolo, but is more carefully executed. Still another and more vigorous phase of Giottesque art is illustrated in an important "Deposition" attributed to Antonio Veneziano (No. 37), and accepted by Crowe and Cavalcaselle as a representative example of his style,[5] of which a half-tone reproduction is here given (PL. VI). These critics, whose judgment of XIV century panels is not often to be impugned, cite no other extant works of Antonio on panel. The picture has a close correspondence with the authenticated frescoes of the Pisan Campo Santo in general handling, in "norms" and in the treatment of the draperies, as is evident on a comparison of photographs. It is much cruder, however, much more labored, and very muddy in tone, which may be due in part to repaints; though I fancy its inferiority may be explained by the difficulties inherent in a medium more obstinate than that of the clear water-color which Antonio employed with such ease in the frescoes. The panel, for all its intensity, is such an unpleasant performance, technically considered, that it hardly adds to Antonio's reputation.

Pictures of slight interest, assigned to an unknown painter (No. 29), to Giottino (No. 32), to Angelo Gaddi (No. 28), to Spinello Aretino (Nos. 33–34), to Jacopo da Casentino (No. 30), to Lorenzo di Bicci (No. 36), and to Fra Angelico (No. 40, probably by one of the Bicci), may be passed without further notice, with no loss to completeness of the survey.

SIENNA.—If we exclude the unimportant example of the Greco-Italian School, ascribed to Duccio and mentioned above, the earliest example of Siennese painting in the Jarves collection is an "Assumption of the Virgin" (No. 35), very characteristic of the symmetry and graceful affectation of the lesser XIV century craftsmen. It is probably later in date than the Lorenzetti, to

[5] "Entirely in his manner."—CROWE and CAVALCASELLE, *Hist. of Ital. Paint.*, vol. I. p. 491.

Judge by its dry technique and an over-elaborateness in the ornament carried out at the expense of higher art qualities.

An interesting "Epiphany," attributed to Simone Martini, but later in date (No. 15), is not certainly Siennese, and I cannot place it exactly. The lower part of the composition, a group of horses in action, is well-preserved and very spirited and well-handled. I may mention in passing an insignificant panel ascribed to Sassetta (No. 48), as peculiar in the treatment of the landscape background with its yellow sky. Several small panels and fragments from Predelle of Siennese altar-pieces of the early XV century may also be noticed. No. 51, given to Giovanni di Paolo, is excellent. That given to Sano di Pietro is characteristic, but inferior to his best work in this line, which as genre is often delightful, as is notably the case in the admirable little compositions of the Louvre. Sano's altar-pieces in Sienna are numerous and well known, but his works are seldom seen elsewhere. A small "Coronation," in excellent preservation (No. 50), is highly characteristic and unusually good. As in the case of other Siennese craftsmen who are quite uninfluenced by Florentine naturalism, and whose conception of their art is that of the mediæval miniaturist, Sano's limitations are less obtrusive in his smaller panels. The brilliancy of pure color in the New Haven example, of which a reproduction is given on PL. VII, renders the piece entirely representative of the "Siennese Fra Angelico."

A "Madonna and Child" attended by two angels, attributed to Matteo di Giovanni (No. 57), we have also reproduced from a photograph (PL. VIII). A recent examination of the XV century paintings in Sienna convinced me that this weakly-drawn but delightfully-decorative panel belongs rather to Benvenuto di Giovanni, whose manner may be easily recognized—in the types, the treatment of the hands, the draperies, and the flat but clear and coloristic tonality—as individual and distinct from that of Matteo or other Siennese contemporaries.[6]

[6] Outside of Italy I have seen only two (or possibly three) examples of this master. A Madonna and Child with Saints, in the London National Gallery (No. 909); a Madonna and Child with two Saints, in the Cologne Museum (No. 777), which might, however, be by some other Siennese painter of the time, though not by Bernadino Fungai, to whom it is ascribed; and a Madonna and Child attended by angels, exhibited in the loan collection of Religious Art, held in March and

I may close the list of Siennese pictures with the mention of two examples of Sodoma, "A Madonna and Child" (No. 95), of which I am not competent to judge, but which seems original, though weakly painted in the hands; and a "Christ Bearing the Cross" (No. 94), which is entirely repainted. This latter may be a copy, as also a Beccafumi (No. 96), neither of which I have, however, examined with any attention.

UMBRIAN SCHOOL.—The Jarves collection possesses a valuable signed example of one of the rarest of early XV century masters, Gentile da Fabriano—a "Madonna and Child" standing in a Gothic niche (No. 39). The picture is cited by Crowe and Cavalcaselle as injured by restoration, but the repaints have been partly removed, and the picture, while perhaps more interesting to the historical student than to the general art-lover, is important enough to have a bearing on various interesting questions which cluster about the artist's manner and influence. A reproduction is given (Pl. IX) for purposes of comparison with other quite as unsatisfactory Madonnas, such as those of the Louvre and the Berlin Museum. It is to be regretted that the only known remaining fresco by Gentile, the Madonna at Orvieto on a pier in the Duomo, and the equally exquisite Madonna by his predecessor and presumable teacher, Lorenzo or Jacopo da San Severino, a fresco in the Oratory of Saint John at Urbino, should be still unphotographed.

The catalogue ascribes to Fra Filippo Lippi a "St. Jerome in the Desert" (No. 60), which is supposed to be the panel mentioned and highly praised by Vasari, which hung in the Guardaroba of Cosimo de Medici. Of this we also give a reproduction (PL. X), which hardly does justice to the original. Vasari speaks of it in connection with the well-known "St. Augustine in his Study," of the Uffizi (No. 1179). The quality of the picture is so notably fine that it is worthy as complete a discussion as would be required by the interesting series of questions connected with the possibility of its identification with the Cosimo panel. I can only say here that it is obviously not by Lippi, but rather a fine example of Fiorenzo di Lorenzo, to judge by its exact correspondence in "norms" and technique with Fiorenzo's

April, 1895, at Nos. 335-341 Fourth avenue, New York. This panel is owned by Mr. James Renwick, and is attributed to Fra Filippo Lippi. It belongs, however, without a doubt, to Benvenuto, and is a good example.

St. Sebastian in the gallery at Perugia.[7] There is a dramatic vigor and unity in the handling of this picture, which, if it be Vasari's "Lippo Lippi," is an ample justification of the Aretine's enthusiasm. The picture is far above the average of Fiorenzo's rather uneven performance, and perhaps indicates the influence which he is supposed to have received from Florentine metal-workers. The landscape is Ghirlandesque, but with Ghirlandajo the figure is never so nervously handled.[8]

Signorelli is represented by a small "Presepio," probably part of a predella (No. 67), of the broadest treatment, parallel to that of his masterly church-standards at Città di Castello and Urbino. and in quite perfect condition—a prize indeed for any collection, A fine "Holy Family" (No. 90), by Lo Spagna, is thoroughly representative, I should say, while the Perugino of the collection (No. 70) is of no quality beyond that of the weakest of numerous XVI century school pieces. A decorated salver of great interest, wrongly attributed to Pinturricchio, is mentioned below as of the Florentine School. Attributed, no doubt correctly, to Francesco Francia, is a "Portrait of the Princess Vitelli" of notable quality. It has been reproduced in Scribner's Magazine, I believe, from a drawing by Blum, but I am unfortunately unable to give the exact reference.

FLORENCE. THE EARLY RENAISSANCE.—Beginning with the Renaissance movement in Florence, we find a large mass of material illustrative of painting on its industrial side, as used in the decoration of articles of household furniture—*cassoni, deschi da parto,*

[7] Catalogue of 1887, Cabinet 9 of Fiorenzo di Lorenzo, No. 11. photographed by Alinari [No. 5652).

[8] The picture is not fairly represented in the half-tone reproduction. It is notable for a somewhat sombre and yet vibrant tonality, in no sense coloristic, yet quite free from violence. The feeling for structure is a natural expression of a plastic ideal; the lights and darks reinforced, crag by crag, sky by water, with great subtlety but no refinement of detail, being thus plastic and subordinate to the figure rather than independently pictorial as in many Florentine backgrounds. The general color scheme is in greys and greens. The flesh tints are green in the body color, the modelling carried on with reddish glazes, and with extreme high lights boldly laid on, giving a result of little fusing and mannered, but adequate and in vigor easily above the ordinary Umbrian or Florentine standard, and suggestive of Paduan or Paduan-Ferrarese influence. Marked mannerisms are apparent in the reproduction. The panel has been retouched in a few places but is essentially intact.

and the like, some of which are of quite early date, and many of which show the influence and some the hand of well-known painters.

All of this work is more or less interesting as illustrative of Renaissance feeling. It is notably decorative, though usually inferior in execution to the better Predella pieces of the period. Paolo Uccello, Domenico Veneziano, Dello Delli, the family of the Peselli and Piero di Cosimo are those who, as a rule, divide the responsibility for these productions in gallery catalogues. There are some fine examples in London (in the National Gallery) of extra-Florentine origin; notably those attributed to Pinturricchio and one given to Domenico Morone of Verona. Piero di Cosimo has done a number which have been identified, and others have been given confidently to Francesco Pesello, but the great mass of examples of Florentine origin have not as yet been critically studied. The New Haven gallery includes six quite characteristic examples of this delightful art, of which one given to Piero di Cosimo (No. 82, hung very high) seemed fairly characteristic of that master on a rapid examination, while several of the others offered marked divergencies from the manner of the artists to which they were attributed. Fine as is the scene attributed to Piero della Francesca (No. 69), in its color and grouping and decorative feeling, it has not his types or color scheme, and the execution is too feeble for Piero, who is quite invariably careful and refined in touch in his panel pieces. The picture belongs to that higher class of early Florentine Cassone pieces which are often associated with the name of Dello Delli. It has some correspondence with Dello's decorations in the cloister of Santa Maria Novella at Florence, but as we know nothing definite of Dello's technique on panel, it would be rash to ascribe this to his hand. The two lively panels attributed to Uccello (Nos. 43 and 44, from the same *cassone*), and the very interesting tournament scene ascribed to Dello (No. 45), are good examples of much the same period and class of work. I may mention here that to Dello also is ascribed an interesting little St. Martin (No. 46), in which the gold work is notably pleasing. The piece is, I should say, by an earlier hand.

Of higher interest, perhaps, than the others is the allegorical

panel given mistakenly to Gentile da Fabriano (No. 38). It reflects the literary spirit of the Renaissance, and seems not to be by a first-rate hand, but to reproduce types already accepted, and which are, even in the paraphrase of a weaker executant, very beautiful and distinctly Florentine. It is probably as early as Masolino, with whose work it has some correspondence. It has the traditional portraits of Dante and others, with other distinctly Florentine types which are often repeated in the composition. The exquisitely painted salver attributed to Pinturricchio (No. 71) is an example of industrial art of which I remember no exact prototype, and I am not able to suggest its derivation, though I presume it to be like all the others, purely Florentine. An illustration is published (Pl. XI) in the hope that a more certain and more definite attribution may be suggested by some special student of the industrial painting of the Renaissance.[9] These Cassone pieces at New Haven are entirely characteristic examples of their kind; the story-telling is never dull, the costumes are quaint and rich, and the color glows undimmed by restoration. In this connection I may mention an insignificant panel depicting a scene from the legend of St. Nicholas, ascribed to Neri di Bicci (No. 62), which shows an early bit of nature study in the nude, and suggests, perhaps, something of a hypothetical movement toward the art of certain paintings attributed to the Peselli.

We return to a more serious art with a panel attributed to Masaccio, "The Infancy of St. John the Baptist" (No. 42), which is of considerable interest for the original treatment of the subject and for the sweep of the background composition. It seems to be of Masaccio's time and tendency.

With a "Madonna Adoring the Child," ascribed to Masolino (No. 41, tabernacle piece), we seem to meet the influence of Fra Filippo Lippi, reflected, I believe, in the charming feeling of some minor scholar. Contrast this quite second-rate but self-poised

[9] The panel is 26 inches in diameter, painted in transparent and subtly fused tempera, the values well understood and the landscape distance atmospheric and justly subordinated. Maroons, greys and quiet greens predominate. The rocks in warm greys, with delicious pinks in the draperies and blonde hair for all the figures. The sleeves of the female figure to the left of the "Amor," and the robe of the figure with a cord, are stamped on gold. The wings of the "Amor" are pink, with some gold work.

and individualistic art with what no doubt, at first sight of the collection, may pass for its greatest picture, the Madonna of the school of Botticelli (No. 74). The poor apprentice whose duty it was to trace from the cartoon Botticelli's outline, did not enjoy his art half as well, I fancy, as the naive painter of the tabernacle piece above alluded to. The picture is pleasing, but Botticelli never did such hard outlines or such feeble hands. A better known assistant of Lippo's, Fra Diamante, is represented here by a characteristically weak example. The inadequate modelling and general lifelessness of the figures is partly redeemed, however, by a finely decorative treatment of the rose-hedge background.

An "Annunciation," presumably the lunette of an important altarpiece, is attributed to Pietro Pollajuolo, with whom it has nothing in common (No. 65, 50 by 11 inches). It is remarkable for its crisp and light tonality, for the ably and freely drawn monochrome classic basreliefs on the parapet in the middle distance, and especially for a masterly though completely subordinated landscape, which is discovered through the opening in the parapet. The principal figures are so much weaker as to suggest a less vigorous hand. The picture has a close affinity, especially in the leafage and general color scheme, to the panels in the Casa Buonarotti, attributed by Vasari and all critics to Francesco Peselli, but which show certain features of divergence from the style of Francesco, and it seems to me may not be by his hand. The New Haven Annunciation must be considered in discussing the vexed questions which beset the student of the Peselli in their relations to Fra Angelico (see the undoubted and very beautiful examples of Francesco in the Doria Gallery), Lippo Lippi, Baldovinetti and others, but the exact bearing of the piece I am not able to discuss at present, nor dare I assert positively its connection with the author of the Casa Buonarotti panels.

Antonio Pollajuolo is represented by a work that must have once been one of his most pleasing creations, the "Hercules killing Nessus" (No. 64). The landscape especially, a view of Florence and the Arno Valley from Signa, must have been delightful. The picture is ruined by repainting and cannot adequately be here reproduced.

A genuine Fillippino Lipp. (No. 81), the "Crucifixion," may be compared with a panel of the same subject at Berlin.[10] A small "Crucifixion," attributed to Lorenzo Di Credi, of very good quality, does not belong to his early manner, and may not be by his hand. A "Madonna," not above the executive ability of an apprentice, is given to Cosimo Roselli (No. 72). Below Fra Bartholomeo, yet of considerable force despite its distressing repaints, is a large "Pieta," ascribed to the frate (No. 86).

An important altar-piece of the XVI century, ascribed to Ridolfo Ghirlandajo (No. 97), is also much injured by repainting, and yet leaves an impression of high and serious art quality. It may be compared with an Albertinelli in the Florence Academy No. 70; Alinari, No. 1383), but might easily be by Ridolfo. A reproduction is (Pl. XII) given for the assistance of those who have paid especial attention to the period. I am not able to give an accurate account of its condition or technique.

A fresco (transferred to canvas) of a "Madonna and Child," ascribed to Andrea Del Sarto (No. 92), now almost entirely obliterated, reminds me of Barocci. Pictures of some quality, original or other, ascribed to Franciabigio (No. 91, much darkened), to Albertinelli (No. 87), to Pontormo (No. 99), to Raphael (No. 89), I have not examined, and I cannot express an opinion as to the authorship of the important but in part repainted Annunciation attributed to Benozzo Gozzoli (No. 63).

NORTHERN ITALY.—Mantegna's name appears as sponsor for a weak "Crucifixion" of the Florentine school (No. 56), but for his influence, or that of the movement of which he is chief, we may well turn to a "Nativity" of curious interest ascribed to Squarcione (No. 55), which approaches very nearly in manner the miniatures of Girolamo da Cremona in the Cathedral Library at Sienna and may be by his hand, though I am not acquainted with any pictures by that artist, who is in his miniatures closely related to Liberale of Verona.

A "St. Sebastian," attributed to Cottignola (No. 98), has very little value in its present condition, and does not resemble the artist's treatment of the same subject in the Ferrara Atheneo.

Few of the Venetian pictures in the Jarves collection are char-

[10] A St. Sebastian ascribed to him (No. 80), has none of his marked characteristics, and is of little importance.

acteristic of what we associate with Venice. There are several specimens of the work of scholars or imitators of Giovanni Bellini, all more or less repainted. The "Bellini" (No. 75) is an original example of some XVI century imitator. It is dry and Bergamesque in color and is not representative of the better class of school work. A probable Bissolo, once fine but now cruelly repainted, is classed as a Basaiti (No. 79). Ascribed to Giorgione is a small "Circumcision" (No 77), in which there is probably not a square millimetre of the original color remaining. It strongly recalls the Louvre "Holy Family" attributed to Giorgione, and given by Crowe and Cavalcaselle to Pellegrino di San Daniele, but is abler in composition, and was perhaps once a Giorgione. Even in its present condition it has somehow an indescribable charm. It has no connection with the Bellini of Castle Howard (the "Circumcision"), the composition of which is so often repeated in school copies.

I cannot discuss all the examples of high Renaissance painting of the North Italian and other schools in the Jarves collection, but may mention in conclusion a portrait attributed to Sebastiano del Piombo (No. 104). In connection with a portrait ascribed to Jacopo da Ponte (Bassano) the editor of the catalogue speaks of that great technican as "an inferior painter." Velasquez had a different opinion.

The general character of the Jarves collection may be inferred from the above notes, which are intended to include everything of importance to the end of the early Renaissance period. My estimate, however it may err in detail, is, I am confident, fairly just in perspective. Estimated as exhaustively representative on the historical side, even the greatest collections are misleading; over-estimation of single works is likewise to be guarded against. To make a Raphael out of an Eusebio, is to steal that which does not enrich the one and leaves the other poor indeed. After all, it is not the name which a picture bears which should measure its capacity for instruction. It would be profitable for us to care less about proving our Gothic altar-pieces Giottos and more about their interpretation as records of mediæval sentiment and thought.

It may be said that the Jarves collection is made up, with perhaps the exception of one masterpiece, the "Jerome" attributed

to Lippi, of the minor works of minor men, and includes much that is more interesting to the amateur in ascriptions than to the general art public. There are a number of examples of rather rare Italian artists not of the first rank. The collection is especially rich in XIV century panel-pieces and in the industrial art of the early Renaissance. Some of the pictures have suffered from restoration, but the larger number have been preserved from this destructive mania by the modesty of their pretensions and the intelligence of their custodians. It is desirable that the collection should be better known and subjected to a more exhaustive historical criticism than I am able to offer. Given a complete collation of all extant original examples of early Italian painting, which will only be physically possible with the aid of complete photographic records, I believe it will be quite possible to extend the boundaries of our knowledge far more widely and to ground it upon a more scientific foundation than has yet been attempted. The "New connoisseurship" should bestir itself to the end of getting its material recorded, Morellian norms and all, and then an exhaustive criticism of our American examples will be a possibility.

Perhaps the most useful function of such minor collections as we are fortunate enough to possess in America, is as forming nuclei for libraries or museums of reproductive material, especially of photographic records, the limitations of which on their merely artistic side at least, might be compensated by the actual presence of original examples of art. The almost complete lack of such illustrative material in American libraries, which is especially noticeable in the matter of painting, is a handicap to the intelligent study of the history of art.

Princeton, N. J.,
April, 1895.

WILLIAM RANKIN.

NOTES ON BYZANTINE ART AND CULTURE IN ITALY AND ESPECIALLY IN ROME.

[PLATES XIII, XIV, XV.]

In a recent number of the JOURNAL[1] I published whatever evidence had come to my notice of the presence of Byzantine artists in Italy during the Middle Ages, evidence based on artists' signatures and on literary sources, without reference to style. I then expressed the belief that such evidence could never prove entirely satisfactory, because the custom of signing their works was not prevalent among Byzantine artists, especially during the early part of the Middle Ages, and because the literary evidence appears to be extremely scanty. The two other methods employed to ascertain whether a work of mediæval art is or is not Byzantine in character have been: (1) the comparative study of Eastern and Western iconography, extremely important but still in its infancy; (2) a judgment based upon artistic style—a method still charged with the personal equation, and rendered extremely insecure from the general lack of a clear acquaintance with the real character, the variations and the limits of the Byzantine style.[2] A foundation for this acquaintance must be laid through the combined study of all the branches of Byzantine civilization that are fundamentally connected with the Fine Arts;[3] and this means much

[1] *A.J.A.*, IX, pp. 32–52: *Byzantine Artists in Italy from the VI to the XV cent.*

[2] A good example of the insufficiency of this method is the discussion that has taken place regarding the frescoes of the XI century in S. Angelo in Formis near Capua. According to KRAUS—the foremost German authority on Christian Archæology—these frescoes mark the close of Western Carlovingian art as contrasted to Byzantine, and he compares them to the frescoes at Reichenau (*Jahrb. d. k. preuss. Kunstsamml.*, Bd. XIV, Heft 1–3). CARL FREY, on the contrary, sees in the S. Angelo frescoes the work of the pure Byzantine school (*Deutsches Wochenblatt*, Oct. 12 and 19, 1893); so does ED. DOBBERT, in the *Repert. f. Kunstwiss*, 1892.

[3] An excellent Byzantine bibliography is given by KRUMBACHER in his *Geschichte der byzantinischen Litteratur* (Munich, 1891), on pp. 27–32.

because in no other civilization was art so closely linked with theological ideas and dogmas and with current and popular traditions and beliefs; in none other was it so universal a means of instruction for all classes.[4] And then there is needed the publication of a *corpus* of undoubted Byzantine examples. To a student of the Middle Ages it is of extreme importance to understand what influence Byzantium exercised upon the West during its formative period, between the seventh and the eleventh centuries, when its civilization, complete, brilliant, and pervasive, was as a beacon to the crude and groping West, and was the only great centre of inspiration, although it was often antagonized and reviled.

The study of Byzantine influence in Italy, which I made in connection with the article mentioned above, has led to the publication of these notes. If they are largely beyond the strictly artistic and archæological pale, this seemed required by objections such as that recently made by Professor Springer,[5] that Byzantine art could not become acclimated in the West, because nowhere could it find congenial surroundings—in religious and social institutions, in language and customs. Such a judgment leads him to the conclusion that for the West there is really no Byzantine question at all, no radical, permanent and general, but only an ephemeral, superficial and extremely restricted influence, in the development of Europe. My main object is to examine into the correctness of this opinion in so far as it relates to Italy; and the conclusion that I have reached is that the debt to Byzantium is undoubtedly immense: in fact, the difficulty consists in ascertaining what amount of originality can properly be claimed for the Western arts, industries and institutions during the Early Middle Ages, and how strongly the later and more original development of the XII, XIII and XIV centuries continued to depend upon these Byzantine artistic principles, ideas and forms. One is still obliged, in dealing with Byzantine civilization, to fight against an accumulated popular inheritance of ignorant prejudice unique in history, a relic of the hatred of the Mediæval

[4] *Cf.* my article in the *Presbyterian Review* (April, 1890), on *The Relation of Christian Art to Theology*.

[5] Introduction to KONDAKOFF, *Histoire de l'Art Byzantin*, vol. I.

West, which outdid the exploits of the barbarous hordes that sacked Rome, when in 1204 it laid its lustful hands on Constantinople, and after destroying, vilified its victim.[6]

Were archæologists better acquainted with the facts made public of recent years by students of Byzantine history,[7] to whom we owe the present reaction, they would realize that the East, after suffering a temporary eclipse during the seventh and eighth century, entered into a period of new life, which lasted, roughly speaking, for two centuries. This period of the IX, X and early XI centuries saw a development of Byzantine institutions and art fully equalling that of the period of Justinian, under some of the finest rulers of mediæval history, able administrators and generals, who recovered for the empire many of her lost provinces in Eastern Europe, Asia Minor, Africa and Italy, defeating the Bulgarians and Slavs, the Mohammedans, Franks and Germans.[8] It was natural that a reaction should follow, and that the decadence of the XII century should lead up to the disaster of 1204. The prejudice against Byzantine art is due partly to the

[6] What a comment it is on the traditional cowardice of the Byzantines to compare the Latin Emperor of Constantinople, Baldwin of Flanders, on the one side, fleeing precipitately with all his followers, without striking a blow, when the Byzantine General Strategopoulos entered Constantinople in 1261, with, on the other side, the last Byzantine Emperor, Constantine, fighting hopelessly, he and his handful, against the countless Turkish battalions, and falling at the breach. And he was no exception, but simply followed the traditions of his predecessors, those great warrior emperors of the IX and X centuries. What a contrast it is to compare Constantinople, the glorious mother of mediæval art and civilization, as she was when taken by the Crusaders in 1204, and looked upon by them mainly in the light of the greatest looting-place in the world, to be pitilessly sacked and ruined, with the Constantinople of 1261, when the Greeks returned to find its bronze statues and even its metal church coverings melted for coin, its marbles used for mortar, its churches torn down to use their wooden beams for firewood. Not a finger raised during sixty years by its Latin occupiers for anything but destruction.

[7] General histories by FINLAY, THIERRY, PAPARREGOPOULOS: HODGKIN, *Italy and her Invaders;* RAMBAUD, *L'Empire Grec au dixième siècle;* SCHLUMBERGER, *Un Empereur Byzantin au dixième siècle;* LENORMANT, *La Grande Grèce;* ARMINGAUD, *Venise et le Bas empire;* LENTZ, *Das Verhältniss Venedigs zu Byzanz;* HARTMANN, *Byzantinische Verwaltung in Italien;* DIEHL, *L'administration Byzantine dans l'exarchat de Ravenne;* HARNACK, *Das Karolingische und das Byzantinische Reich, etc.;* GASQUET, *Études Byzantines; etc., etc.* Further material can be found in KRUMBACHER'S list, *op. cit.*

[8] Consult the works of Rambaud, Schlumberger and others, referred to in the preceding note.

fact a great majority of the works attributed to it in the West belong to the decadence of the XII and XIII centuries, and that the worst of these are not by Byzantine artists, but by inferior Western imitators.[9]

ITALY AND BYZANTIUM.

Prof. Springer's discussion of the Byzantine question, in his introduction to Kondakoff's recent *Histoire de l'Art Byzantin*, may be taken as a fair statement of a large class of art critics, and I shall consequently take it as my text. His opinion is that Byzantine influence overstepped its normal limits only under exceptional circumstances, and that the predominance of Byzantine elements in certain parts of the West during the Early Middle Ages, supposes local artistic powerlessness and stagnation (p. 16). He denies (p. 19) that, up to the close of the X century, any foreign (*i. e.*, Byzantine) influences were felt except in the portions of Southern Italy that were dependencies of the Byzantine empire. For the Romanesque (XI–XII cent.), as well as for the Carlovingian period, any Byzantine influence in architecture, sculpture or painting is denied; and it is asserted that the better one becomes acquainted with Byzantine art the more it is seen to be local, like the art of any other people; and Springer finally goes so far as to assert that *for the West there is really no Byzantine question at all.* In his opinion, "The existence of Byzantine art supposes certain special conditions: when these are wanting the soil is not propitious to its growth. General impressions or a mere resemblance of technical processes are not sufficient to favor its development." The legend of Greek monks fleeing from the Iconoclasts is not convincing; for permanent and not transient and casual causes are required. Byzantine art can reign only where it can be understood, and where the customs and especially the ecclesiastical institutions are in harmony with its aspirations.

[9] This refers mainly to Italy. All Italian painting during the XII and XIII centuries, with either Byzantine or Italo-Byzantine, and the works of such men as the Berlinghieri, Margaritone and other men, especially of the Pisan and Lucchese schools, are instances of how low painting could sink. Byzantine artists would have despised such works, even during the period of their own decadence. The same was the case with many of the earlier mosaics in Rome during the VII, VIII and IX centuries.

In such cases its influence will be general. But even where the Greek language was current and its civilization dominant, Byzantine influence was unable to maintain itself in an enduring way. In Sicily it was thrown off soon after the Arab yoke was removed, *etc.* The gist of the above synopsis of Prof. Springer's opinion is that Byzantine art could flourish only in congenial surroundings, and that such surroundings were never really permanent or natural in the West. He grants that they existed for a time in Venice, in Sicily, and in Southern Italy, but he minimises his admission by asserting the absolute isolation of Venice, and by claiming that in Sicily the Byzantine yoke was thrown off as soon as the Norman conquest had restored initiative and freedom.

Before studying Byzantinism in Rome, which is the main object of this paper, it may be well to test the accuracy of this judgment of Springer by a brief review of the connection of the other parts of Italy with Byzantium. Of course in doing this many facts must be mentioned that are known, but the picture would be otherwise incomplete. The subject itself can be treated only suggestively in so limited a compass, and many proofs must be omitted. Perhaps, on the way, an answer can be found to these questions: (1) Were there in Italy, at any time, centres where the different phases of civilization were favorable to a development of Byzantine art? (2) Is the legend of Greek monks coming to Italy not convincing, and are they to be regarded as a merely transient or as an integral factor? (3) Does not Professor Springer confound two distinct factors—Byzantine art proper and Byzantine influence on Western art?

A certain Oriental element can be found in parts of Italy, and especially at Ravenna, during the IV and V centuries, but the main influx began with the conquest under Justinian in the VI century. Shortly after the close of the Gothic wars (535–553), by which Belisarius and Narses had re-annexed Italy to the Roman Empire of the East, the entire peninsula as well as Sicily came to be governed by a Byzantine exarch, the emperor's viceroy, under whom were the dukes, *magistri militum*, consuls and turmarchs of the different provinces, and a well-organized hierarchy of Byzantine military and civil functionaries. The first

break came, almost immediately, with the Lombard invasion, which wrested a large part of the peninsula from Byzantine rule; the second was brought about by the policy of the Iconoclastic emperors,[10] which led to enmity between Rome and Byzantium and the schism of the two churches, consummated in 789; the final blow came in the capture of Ravenna—the capital of Italy—by the Lombards in 753. Here ended the first wave of Byzantine influence, which had exercised but little artistic power after the middle of the VII century, except in Rome, for this century was one of decadence throughout the Orient. Then, at the very moment when the rise of the Frankish empire menaced the Western provinces of Byzantium, the crisis raised up, as it so often does, men equal to the great emergency: such men as Basil the Macedonian, and, later, Nikephorus Phokas and John Zimiskes. At this time the supremacy over Venice was strengthened, Sicily reconquered, and a great part of Southern Italy colonized by Greeks. After the XI century, when the Eastern empire lost irrecoverably all its Italian possessions, Byzantine influence was perpetuated in two ways: (1) through commerce carried on by the great maritime cities—Venice, Genoa, Pisa; (2) by the conservative character of the Byzantine colonies, especially in the South, which perpetuated for several centuries the various elements of Byzantine culture; (3) through emigration.

Byzantinism in Italy naturally falls into five sections, which taken together form a network extending without a break from the V to the XIII centuries, during which time a considerable portion of the peninsula was more or less dependent upon Byzantium. RAVENNA illustrates this fact very fully from the V to the VII centuries, the picture being completed by secondary monuments extending from the cities of Istria to Rome and Capua. Then follows ROME, a refuge for Greeks during the Iconoclastic period, and full of monuments by their hands belonging to the VII, VIII and IX centuries. At the close of their activity in Rome, SOUTHERN ITALY raised the Byzantine standard when Calabria and Apulia were colonized in the IX and X centuries by the Byzantine emperors and from Sicily, and at the other end of Italy, the people of VENICE adopted Byzantium as the norm-giver of their

[10] All Italy rose against Leo the Isaurian between 726 and 730.

civilization when it began so greatly to expand at the close of the x century. Both Venice and Calabria were far more Greek than Italian. Finally, the last and best known display of the Byzantine artistic style in Italy is in the mosaics of the XI, XII and XIII centuries in SICILY, Rome, Venice and elsewhere, by which the art of painting was re-founded under the direction of Byzantine iconography and style.

I shall study these phases successively, beginning with Ravenna.

RAVENNA.

After the partition of the empire, during the closing years of the IV century, while Rome lapsed to the rank of a provincial city, Ravenna became the Western capital, and preserved this rank, with ever-waning power, until the final overthrow of Byzantine rule in 752. Had it been the seat of a rising power, it might have become the Queen of the Seas, taking the place afterwards held by Venice. As a unit in the problem before us, it is of the utmost importance. Already in the V century it was far more Greek than Italian. After the Byzantine reconquest in the VI century, it was the first to become thoroughly impregnated with the new civilization then taking form in Constantinople. This was to be expected, as the city was soon filled with Eastern traders, and with Byzantine troops and functionaries, becoming the principal bond between East and West. As Bayet and Diehl[11] have already remarked, if we wish to understand what Byzantine art was from the V to the VII centuries, it is not to the East that we must go, but to Ravenna, for the entire Orient could hardly furnish such a series as exists in Ravenna alone. The monuments are merely a tangible sign of a general condition, for it appears certain that a large part of the population, the majority of its early archbishops and of its clergy were of Greek nationality or descent, and its ecclesiastical relations were quite as close with Constantinople as with Rome. The city had a Greek association or *Schola Græca*, which must have been formed, as it was in Rome, of Greek inhabitants, of which there were large num-

[11] DIEHL, *Ravenne; études d'archéologie byzantine*: BAYET, *Recherches pour servir à l'histoire de la peinture et de la sculpture chrétiennes en Orient*, and his later work, *L'Art Byzantin*.

bers, especially in the large suburb of Classe, the port of the city. There are many proofs of the general use of the Greek language: the church of Ravenna was called *allocephalis* on account of its claim to be independent of Rome: its cathedral, when built late in the IV century, received the name *agios Anastasios*—Church of the Holy Resurrection: the archbishops appear to have received their surnames invariably in Greek. The city contained a number of monasteries of Greek monks, notably those of S. Maria ad Blachernas and S. Maria in Cosmedin. The abbot or *higoumen* of the latter monastery had the historic privilege of placing the mitre on the head of every new archbishop in the great basilica of S. Lorenzo in Cesarea, to which a Greek monastery was also attached. We must believe that Ravenna received extensive Greek and Eastern colonization at two periods: one considerably before, the other during the Byzantine occupation. Ravenna exercised a strong Greecizing influence over a large territory while it was the residence of the Byzantine exarchs. Its immediate territory was bounded by Venice on the north, by the fluctuating Lombard and Roman frontiers on the west and south; but its artistic influence—always purely Byzantine—had an even wider scope. To it we may attribute the wide spread of the peculiar style of Byzantine decoration in low relief which began to prevail at the close of the VI century over the entire peninsula, and which, with modifications due to artistic rise and fall and to the different nationality of the artists—whether Byzantines or Italians—held sway in Italy until the XI century. A fuller discussion of this fact will appear in connection with Byzantine art in Rome. Except for a few barbarous Lombard attempts, and for the continuation of the Latin form of the Roman basilica in certain provinces, all the branches of the Fine Arts in Italy appear to have been in the Byzantine style or in imitation of it from the VI to the X centuries.

VENICE.

I shall merely consider two points: the degree of Byzantinism and the reality of the isolation of Venice. After having at the very beginning (VI century) proved to Belisarius, Narses, and Longinus their fidelity to the empire—which always remained

for them the Roman empire—it would seem as if, first through real dependence as well as sympathy, and then from self-interest, Venice remained up to the XI century a consistent and more or less actual subject of the Byzantine empire. Venice owed her existence, her development and her power to the protection and privileges granted by the emperors of Constantinople. She should be regarded rather as an Eastern sentinel on Western shores than as part of the West. When Pepin, the son of Charlemagne, attacked the Venetians, in 805, because of their fidelity to Byzantium, and threatened their very existence, their reply was: "It is not to thee but to the Emperor of the Romans that we wish to belong." Venice would not have been one of the great mediæval powers had Byzantium not covered her with her protecting ægis, encouraged her commerce by the granting of special privileges, given her the investiture of Dalmatia, the possession of which, at the close of the X century, made her queen of the Adriatic; and finally, by the golden bull of Alexis I. in 1082, in recompense for help against the Normans, placed her in possession of the entire commerce of the East. During the first five centuries of Venetian history (VI–X) we find that whenever Byzantium wished it she exercised unquestioned power over Venetian affairs; requiring Venetian fleets and troops for expeditions from the time when they were used to recover Ravenna from the Lombards, in about 740, until they took so important a part in defeating the bold attacks of the Normans on the empire of the East in 1081 and again in 1147–9,—the intervening expeditions being either against the "Saracens" or the Franks and Germans. It is true that a distinct difference is to be noted between the beginning and the close of this period, and that while from the VI century up to the early part of the IX Venice was an essential part of the Byzantine empire; after that time her dependence was really nominal. The doges, almost without exception, during the entire period, received from the Byzantine emperors some title making them members of the hierarchy of the Eastern Court, and this title appears by many of them to have been held in higher esteem than that of doge.[12] It

[12] This would appear to be shown by a number of contemporary documents, where in some cases the Byzantine title is placed first, before that of Venetian doge,

was also the custom for the doge, shortly after his election, to send his son or brother to Constantinople, or to go in person, to assure the emperor of his fidelity. Sometimes the son remained for quite a period in the imperial city, and as the dogeship, with its association of son with father, in imitation of imperial usage, was virtually hereditary during a large part of this period, it is easy to understand how this familiarity with Byzantium gained by the heir presumptive served to strengthen the bonds that linked Venice to the East. It is significant that the early doges whose rule marked the greatest advances in Venetian power, the Galbai, the Partecipazi and the Orseoli, were thorough partisans of Byzantium. Even the Franks, while they tried to annex Venice, recognized her dependence on the Eastern empire. Eginhard, in his annals for the year 811, referring to the destitution and captivity of doge Obelerius at the hands of the Byzantine envoy Arsaphius, on account of his treachery, says: *Propter perfidiam honore spoliatus Constantinopolim ad dominum suum duci iubetur.* This very unopposed deposition of doges Obelerius and Beatus by Arsaphius, who came from Constantinople at the head of a Byzantine fleet, and the election of a doge agreeable to the emperor, is certainly a striking instance of this dependence. The various titles accorded to the doges by the emperors were: hypatos, protospatharios, protosebastos, patricius, proedros, protoproedros. Of these the earliest was that of consul or hypatos, and the most frequently used that of protosebastos. It is interesting to note that when, in the XII century, Venice and the Empire had passed from friendship to distrust and enmity, the doges demanded and obtained that the rank of *protosevastos* should be a perpetual appanage of the dogeship.

Even at an early date Byzantine influence was current in Venetian ecclesiastical spheres. After the patriarchate had been removed from Aquilea to Grado, in consequence of the invasions, the man who established it upon a firm basis, and was one of the greatest administrators and builders that ever occupied the see, was a Greek, Elias, who built (c. 550) the churches still standing

and in other cases the Byzantine title alone is given. Consult TAFEL and THOMAS, *Fontes rerum Austriacarum, Abth.* II, Bd. XII, Theil. I; GLORIA, *Monumenti Storici*, vol. II, *Cod. diplom. Padovano;* ROMANIN, *Storia documentata di Venezia.*

in Grado. Shortly after the establishment of the new Venetian bishopric of Olivolo, in the VIII century, it was occupied by two Greeks, both named Christopher.

The mass of the people always showed their sympathy for the Eastern empire as against Lombards and Franks. The Venetians adopted the Greek costume and manners, and this went so far that they were often by Franks and Slavs, and even by Popes, confounded with the Greeks. The doge, the nobles, the women, all dressed after the Oriental fashion. Not only was the city full of Greeks, but all the products of the East were accumulated in its warehouses and palaces. Its churches were consecrated to Eastern saints, and the city itself was under the patronage of the famous Greek saint, Theodore, until the IX century, when he was superseded by S. Mark. Its nobles intermarried with Greek ladies. Hardly a citizen but had travelled on Venetian vessels to the Eastern ports, and especially to Constantinople, and being familiar with its monuments, its luxury, its refined and highly-organized civilization, held that of the West cheap in comparison, and were glad that they had escaped the feudal anarchy that had overwhelmed every other corner of Europe. The Venetians lived really as much in the East as at home. In the XII century there was hardly a town of any size, and certainly not a seaport, where the Venetians did not have a colony owning a street and a church, and governed according to its own laws by its own magistrates—bails or consuls. This was the case throughout the Byzantine Empire in Europe and Asia, from Dalmatia to Asia Minor and the ports of the Black Sea, and throughout the new and ephemeral domain of the Crusaders in Syria and Palestine. In Constantinople alone there were ten thousand resident Venetians—rich and haughty. Twenty thousand Venetians are reported as having gone to the East to trade during the year 1171, when Manuel Komnenos ordered the imprisonment of all the Venetians in the empire. The colonies reached at times such importance as to necessitate the creation of a diocese with a bishop appointed by the patriarch of Grado, and also led to the foundation of monasteries.

Owing to the fact that no history of the Greek colony anterior to 1204 has been attempted, it is not easy to ascertain how much

Greek blood flowed in Venetian veins. We may say that there were three ways in which it entered into Venetian life. First, through original Greek and Eastern settlers; second, through intermarriages with Greek women; and third, through emigrants. A number of the original families that fled to the lagoons, and whose names are noted in the *Chronicon Altinate*, several are from Greek centres; such were the Salviani from Salonica, the Campoli and Calpini or Albini Alboli from Capua. The famous Guistiniani family was of Greek origin, and so were the Candiani, and, later, the Zancaroli, Semitecoli, Bizzamani, and a host of others whose names will be found in documents of the XII and XIII centuries.[13] In many cases the signers of these documents put themselves on record as Greeks by adding that epithet to their name: Petrus Grecus, Petrus Greculo, Johannes Greco, Dominicus Grecus, Philipo or Philipus Greco, Bartholomeo Greco. In other cases the form of the name is a sufficient indication, for example: Petrus Sopulo, Domenicus Mazarion, Vitalis Basilio, Domenicus Nazio, Joannes Theonisto, Aurolino Pantaleo, Aurius Sisinulo, Jacopo Theupolo, *etc.* Of even greater importance, though less easy to gauge, is the effect of the intermarriages with Greek women, so common during several centuries as to strongly affect the Venetian aristocracy. One of the earliest on record is that of the grandson of doge Angelo Partecepazio (or rather, according to the ancient form of the word, Angelo Particiaco), who married in Constantinople before 821. Perhaps the most notable was that of John, the son of the great doge Pietro Orseolo II. He was sent to Constantinople in 1004, at the request of the Emperors Basil and Constantine, who married him to their niece Mary with great pomp, the young pair being crowned with gold crowns by the emperors, and remaining in Constantinople over a year, together with John's younger brother Otho, who afterwards became doge. The Greek woman that was the most gossiped about by the mediæval writers is the sister of the Emperor Nicephorus Botoniates, who married Doge Domenico Selvo (1071–84), and was so much blamed for wearing gloves, using perfumes, and not eat-

[13] Consult TAFEL and THOMAS, *op. cit.*, documents 25 (1090), 33 (1107), 59 (1164), 63 (1175), 78 (1196).

ing with her hands, but with fork and spoon. It is to be supposed that a large part of the Venetians who took up their residence in the Eastern empire married Greeks.

It is hardly probable that Greek emigrants affected Venice very considerably until the XI and XII centuries: we know that their numbers increased immensely after the conquest of Constantinople in 1204. In fact, the fall of the Eastern capital, so far from putting an end to Byzantine influence in Venice, was the occasion of its increase, especially in the sphere of art, both through the great numbers of Greeks and Greek artists that flocked to Venice, and the effect of the bringing to the city of the wonderful art treasures of Constantinople which the Venetians were alone in appreciating and seeking to save from destruction.

As Armingaud remarks:[14] "Commerce, politics, religion, all contributed to favor the presence of the Venetians and to protect their interests throughout the Eastern empire. They occupied a quarter in the capital, a street in the principal towns. They formed a numerous population, strongly established in the country by its riches, its high connections, and by its private interests and affections, but also strongly attached to the mother country by commercial relations, the enjoyment of a national legislation, the authority of its consuls and ambassadors, and the supreme jurisdiction of the head of its church, which was sufficiently hellenized to attain rapid success in Greece but too Venetian ever to forget Venice."

"If we turn from Constantinople to the lagoons, we find a no less strange spectacle: after the Venetians of the East, the Greeks of Venice; after Venetian colonization in Greece, the transformation of Venice by the Byzantines. The Greek colony, so numerous even now, has a very early origin. . . . But the presence of the Greeks was as nothing compared to their influence. The Venetians themselves seemed almost as Byzantine as the children of Byzantium."

Perhaps in no sphere outside of the artistic can this fact be

[14] M. T. ARMINGAUD, *Venise et le Bas-Empire. Histoire des relations de Venise avec l'empire d'Orient depuis le fondation de la république jusqu'à la prise de Constantinople au XIII siècle* (p 451): published in *Archives des Missions Scientifiques et littéraires*, 2e série, t. 4, pp. 299–443.

more clearly demonstrated than in that of diplomacy. As early as the XI century the Venetian mind, trained by contact with the wily court of Constantinople, had attained to that calm clear-sightedness, that secrecy and discretion, that power of observation and knowledge of men, that ability to foresee and provide for all contingencies, which once attained under such eminent masters as the Byzantines, became traditional in Venice for centuries and lay at the root of her success.

These notes on the relations of Venice to Byzantium are necessarily brief and sketchy; but they are the substance of what might be greatly enlarged upon. The different phases of political dependence are well illustrated by Lentz's essay,[15] and good material is furnished by Armingaud, whose work, however, extends far beyond political questions into the social and commercial spheres, and is not wholly to be relied upon. To these works I refer for many details. The full force of the influence of Byzantium can, however, be felt only on a careful reading of the contemporary documents and the early chronicles.

This review will make it plain that, from her foundation up to the XIII century, Venice furnished almost an ideal environment—so far as there could be one in the West—for the use of Byzantine art. It was the form of art prevalent in what was to the Venetians' mind the most highly civilized portion of the world, the form they were most accustomed to seeing, and which they thoroughly appreciated and understood; while its harmonious, deep Oriental coloring captivated the natural Venetian color-sense. No one can seriously deny that Venetian art was largely Byzantine in character, so that it is not necessary to rehearse the matter here. The only dispute could be as to whether there were many artists from the East in Venice, or whether the churches were built and decorated altogether by Venetians trained in some cases in Constantinople. As this is really not of fundamental consequence in this inquiry, I shall mention merely some cases that are recorded

[15] ED. LENTZ, *Das Verhältniss Venedigs zu Byzanz nach dem Fall des Exarchats bis zum Ausgang des neuenten Jahrhunderts.* I. *Venedig als byzantinische Proving* (published in 1891 in Berlin); II. *Der allmähliche Uebergang Venedigs von faktischer zu nomineller Abhangigkeit von Byzanz* (publ. in *Byzantinische Zeitschrift*, 1893, pp. 64–115).

of Greek artists who worked in Venice, beginning with a fact that must be regarded as of considerable importance in the artistic history of Venice—the construction, at the expense of the Byzantine emperor and by artists sent from Constantinople, of the church and monastery of S. Zaccharias. The golden bull of the Emperor Leo V (814–820), giving instructions for the erection and enrichment of this monastery, has been lost. There remains, however, the decree of Doge Justinian (827–829), which I shall quote as being of unusual importance:[16]

"*Cognitum sit omnibus Christi et sancti Romani imperii fidelibus, tam præsentibus quam et illis qui post nos futuri erunt, tam ducibus, quam patriarchis atque episcopis seu ceteris primatibus, quia ego* JUSTINIANUS, *imperialis Hypatus et Venetiarum Dux, per revelationem domini nostri omnipotentis et jussione domini serenissimi Imperatoris seu et conservatoris totius mundi,* LEONIS, *post multa nobis beneficia concessa feci hoc monasterium virginum hic in Venetia, secundum quod ipse iussit, edificare de propria camera imperiali, et secundum quod iussit mihi statim cuncta necessaria auri sive argenti dari. Tunc etiam nobis reliquias sancti Zaccariae prophetae et lignum crucis domini atque sanctae Mariae pannum sive de vestimentis Salvatoris et alias reliquias sanctorum nobis ad ecclesiam sanctam consecrandam dari fecit. Ad necessaria huius operis etiam magistros tribuit, ut citius opus explerent, et expleto opere congregatio sancta incessanter pro salute serenissimi imperatoris et suorum heredum orarent. De thesauro vero, quod manifesta sua carta cum literis aureis, et totum donum, quod in hoc loco ipse transmissit, in ipsa camera salvum esse statuimus. Tamen ipsam cartam in camera nostri palatii volumus ut semper permaneat, et ut non valeat aliquis hoc dicere, quod illud monasterium sancti Zaccariae de alicuius thesauro esset constructum, nisi de sanctissimi domini nostri Imperatoris Leonis.*"

The Emperor Leo had been dead several years when Justinian became doge in 827. But Justinian had been for some time in Constantinople during the dogeship of his father, Agnellus Particiacus, probably in or before 819, was then made Hypatus by Leo, and may, on his return to Venice, have brought with him the emperor's bull and his gifts for the monastery which was to be built, including the relics, and was probably then accompanied by the Greek artists then destined by the emperor to erect the church

[16] TAFEL and THOMAS, *Fontes rerum Austr. Abth.* II, *Diplomata et acta*, I, No. 1.

and monastery. It must be believed that the construction was commenced at once, while he was associated in the dogeship with his father, for this decree of 827–29 speaks of the monastery as if it were already constructed.[17] A study of the Venetian documents shows that this was perhaps the most important monastery in the city—the place of burial for the doges, of refuge or forced retirement of great personages, the parish church of the new city, the owner of vast possessions, about which it was involved in frequent disputes. One would hardly be far from the truth in conjecturing that until the erection of St. Mark's in the XI century—not as a ducal chapel, but as a large basilica—S. Zaccharia, situated as it was not far from the ducal palace, was the most monumental church in the city and influenced the development of Venetian architecture, although so little now exists of the early church that this must remain a mere conjecture.[18] With S. Zaccharia begins a series of Byzantine monuments in Venice—palaces, churches, monasteries — some of which still remain. Such were the early ducal chapel of S. Mark's, S. Fosca of Torcello, S. Giacomo di Rialto, parts of the cathedral of Murano, many palaces in the style of the *Fondaco dei Turchi*, and, finally, the basilica of St. Mark's itself.

A notable invasion of Greek artists is evidently connected with the building and decoration of S. Mark's in the XI century. At that time Greek painters established an association in Venice under the patronage of Aghia Sophia, at a house near the church of St. Sophia, which had been built in 1020. Some native pupils of this guild afterwards seceded, and the disputes between the original and the branch associations were so vehement in the XIII century as to require the intervention of the authorities. A member of this Greek invasion was probably the mosaicist Petrus,

[17] In my paper on *Byzantine Artists in Italy* I referred to the presence of Greek artists in Venice, for the erection of S. Zaccharia, solely on the late authority of Sansovino, not having at that time become aware of the original document upon which the assertion was based.

[18] In his *Geschichte der Baukunst und Bildhauerei Venedigs* (pp. 101–2), MOTHES says: "*der bereits erwähnte Glockenthurm, sowie ein Stück des Kreuzganges im zugehörigen Nonnenkloster, sehr einfach aus Rundbogen-Arcaden mit Würfelkapitälsäulen bestehend, scheinen die einzigen Ueberbleibsel dieses alten Baues zu sein.*" I have not myself examined the tower and cloister, and cannot, therefore, judge whether Mothes' rather bold conjecture is probable.

who in 1100 began, according to an inscription, the mosaic decoration of St. Mark's. In 1153 Marcus Indriomeni, a Byzantine mosaicist, worked in Venice, and in the next century Theophanes of Constantinople opened a school for painting in Venice. A painter named Theophilus is also mentioned at this time. The pure Greek school continued to rule Venice until the XIV century.

I shall not describe the Venetian churches and palaces constructed or decorated in the Byzantine style between the IX and the XIII centuries; the general facts are well known, and I could add but a few less-known examples. My object is merely to prove that in Venice such works were no exotics, but in harmony with the traditions, life and experience of the people.

One point remains to be touched upon, and that is the isolation of Venice from all the rest of Italy. Is there any truth in Springer's contention that this isolation was such as to prevent her from radiating the Byzantine influence that had so possessed her? It seems as if the difficulty were raised through a historic misapprehension, through the error of looking at the Venice of the Middle Ages through the eyes of a modern man used to centralization, and who has in mind the isolated Venice of the last few centuries, and does not realize that in the Middle Ages most Italian cities were autonomous. As a matter of fact, there was no city in Mediæval Italy whose connections were so broad and general, both within and without the limits of the peninsula. Before and during the Crusades it was the principal port of embarkation for the Orient, the resort of pilgrims and of knights from France, Germany and Italy. It supplied all Europe with the natural and artistic products of the East, and in turn ransacked the West for products to carry eastward in exchange. Its colonies were not only in the east, but in the west also, in the south of France (*e. g.*, Limoges) and in Germany, and its vessels not only utilized the seaports, but ran up the principal rivers. A glance at the history and trade of Venice during the XII and XIII centuries would rather lead to the conclusion that Venice was superior to all other Italian cities in her ability to influence others. In the sphere of the Fine Arts, for example, we find records of a number of foreigners working or studying in Venice, like the sculptor *Giovanni Demio* of Vicenza, the Lombard engi-

neer and architect, *Niccolo dei Barattieri* (XII cent.), the Ferrarese painter, *Gelasio di Nicolo* (c. 1200), the Florentine painter, *Andrea Tafi*, the Roman sculptor, *Marcus* (1217). On the other hand, Venetian artists are found working in distant parts of the peninsula and even outside of Italy. It is probably they who built St. Front at Perigueux, that famous facsimile of San Marco. We find the Venetian sculptor *Marcus Venetus* working in 1210 at Genoa, her later rival. Earlier than that, perhaps in the XI century, the sculptor *Joannes de Venetia* carves the main portal of the church of S. Maria in Cosmedin in Rome. Two further examples of great importance also come from Rome. During the last years of the XII or the first of the XIII century Pope Innocent III had the apse of S. Peter decorated with mosaics in the Byzantine style, each figure accompanied by a bilingual inscription in Greek and Latin.[19] It appears certain that the Roman school itself, although unsurpassed in decorative mosaics, was incapable at that time of producing monumental figured works. Consequently we must look outside of the native school for the mosaicists of the apse of St. Peter's; and there are only two schools in Italy, both of Byzantine origin, to which they can be attributed—the Sicilian and the Venetian.[20] Of these we are bound to select the Venetian, on the testimony of a letter of Pope Honorius III, which shows that the mosaics still existing in the apse of St. Paul outside-the-walls, of the same style as those in St. Peter, were the work of artists from Venice. This letter was addressed to Doge Pietro Zian, on January 23, 1818.[21] In it Honorius thanks the doge for having already furnished him a mosaicist, and requests

[19] Fragments from this apsidal mosaic of the old basilica still exist in the crypt of St. Peter, and I believe in the Christian Museum of the Vatican. They had been carefully and fully described before their destruction early in the XVI century.

[20] The Byzantine mosaic school at the monastery of Monte Cassino, established in the middle of the XI century, had stimulated, and in fact re-created the Roman school of mouumental mosaic-painting during the first part of the XII century, but this revival, though important, was only temporary, and after producing works at S. Bartolommeo all' Isola, S. Clemente, S. Maria in Trastevere, S. Francesca Romana, *etc.*, it lapsed so completely that no works of any consequence were executed during the last forty years of the XII century.

[21] This letter was discovered and published by Prof. Mariano Armellini in his *Cronachetta* for 1893. See my article on the mosaics of Grottaferrata in the *Gazette Archéologique* for 1883.

that others be sent to Rome from Venice in order to complete the apsidal mosaics in St. Paul. Thus the two principal basilicas of Rome were decorated by Veneto-Byzantine artists; and the Roman school of figured mosaics, which was to produce such fine works during the following hundred years, was reëstablished by this means. There is every reason to accept the substantial accuracy of Vasari's statement that Andrea Tafi learned mosaic-painting in Venice of the Greek Apollonios; at all events, we may believe that the Tuscan mosaic school of the close of the XIII century was merely an offshoot from the Venetian.

In my article on Byzantine artists in Italy, I spoke of certain Byzantine elements in the cathedral of Pisa, and referred to the doubtful nationality of its principal architect, Buscheto. As the form and the meaning of this artist's name have given rise to much conjecture, and as it has, I believe, not been noticed to occur elsewhere, it is interesting to find it in a Venetian document of the XII century, under the form *Busceto*,[22] and this gives more likelihood to my suggestion of the Byzantine training of the Pisan architect. In the same article the paintings of the Bizzamani family of Otranto are mentioned; and this name is, I find, that of a family of Venetian Greeks noted in the XII century, and it seems likely that even at that time there may have been painters among them, for they are mentioned as constructing the church of St. Luke, the titular saint of the painters, and also the building for the housing of the corporation of Greek painters (A. D. 1147).

SOUTHERN ITALY.

It is or should be a commonplace, that Sicily and Southern Italy, except for some Lombard cities, were essentially Greek lands during the early Middle Ages. Sicily, beside a sprinkling of Lombards, had but two classes of inhabitants before the Norman conquest—Greeks and Arabs. Calabria was peopled by Greeks. The majority of the cities of Apulia were founded in the X and XI centuries by and for Greeks. Even Gaeta, almost

[22] This *Busceto* was an officer of the Venetian fleet that mutinied at Abydos in 1196, and the document which the officers signed, who clubbed together on this occasion to pay their seamen, is signed by a considerable number of Greek names. See TAFEL and THOMAS, *op. cit.*, doc. No. 78.

at the gates of Rome, as well as Naples and other cities of Campania, were preponderatingly Greek. It would be a waste of time to show in detail the vicissitudes of this development and the artistic side of it. Lenormant, Diehl, Battifol and a number of Italian specialists have studied parts of the subject, and have proved easily enough that Byzantine art enjoyed here every facility for free development in the midst of the most congenial environment. In the present paper this part of the subject must be taken for granted. The main prop of the anti-Byzantinists is Rome, and Rome will therefore be my main objective; for if Rome falls, what is left?

ROME.

Among the arguments employed against the strength of Byzantinism in Italy, none is more prominent than that based upon the antagonism of Latin Rome to everything Byzantine. Such an argument seems at first sight well-grounded. The split between East and West on the question of image-worship, the schism between the two churches, the transference of the political allegiance of Italy and the papacy from the Eastern emperors to the Franks —all these are due directly to Rome and the papal policy. And yet the fallacy of these reasons is almost self-evident. In the first place, the persecution of image-worship was a matter of imperial policy, not of popular feeling; and the immense majority, both of the clergy and of the people throughout the Orient, were in hearty sympathy with the attitude of the Roman Pontiffs, which may even be said to have strengthened rather than relaxed the hold of Byzantine influence on Italy, especially in the field of art, for it brought to the peninsula swarms of Byzantine artists. Then it must be remembered that among those popes who stood up strenuously for images and for the supremacy of Rome there were Greeks and Orientals, and that in Greek lands there were still many adherents to the Western Church. The transference of political allegiance was soon counterbalanced by the influence of the numerous Greek colonies and monasteries established in Southern Italy during and after the iconoclastic persecution (VIII–XI cent.), in addition to the monasteries established in Rome itself.

Much is made of the continuity of the Roman tradition from classic times. In illustrating this fact in the domain of art, for as

late a period as the XII century, Prof. Springer uses the identity of the decorative mosaic system used in the Sicilian churches with that of the Roman monuments as his strongest argument in favor of Rome's victory over Byzantium, even in her stronghold of Sicily, as soon as the Norman conquest had freed the population from the fetters of Byzantine tradition. Ample proof will be given in this article—for the first time, I believe,—that this beautiful system of decoration is, after all, not Roman, but Byzantine and Oriental in its origin, and that if it proves anything it proves that Byzantine art held sway even in Rome itself.

And yet, while it is perfectly natural that the strength of the Roman tradition should be constantly urged, it may be asked: Was there an unbroken Roman tradition? If it could be proved that a large Byzantine element was introduced at any time so as to form an integral part of the Roman development, in various forms of civilization, this theory of the radical opposition of the two would be no longer tenable.

Up to the VI century the Roman tradition may be regarded as unbroken. Whatever Greek element had found a home in it was a common inheritance of East and West before the formation of a distinct Byzantine type of civilization, and yet this Greek element was sufficiently powerful to affect the stream of Roman development. Greek was the sacred language, the language of the church from the beginning, and it remained so, more or less, until the XI or XII century. Greek ideas were most influential in literature, in liturgy, and in artistic types and subjects.[23] The absorption of this element was, however, complete, and the tradition thus established was not disturbed until the VI century. During the first decades of this century there were signs of closer union with Byzantium. The Arianism of King Theodoric the Goth led to a *rapprochement* between popes and emperors, and this was shown when Pope John II went to Constantinople in 525, where he was received with great honor, and crowned Justin emperor. The colonies of Alexandrians, of Syrians and of Greeks in Rome were reinforced, and churches were built in honor of Eastern saints. A typical monument of this sort is the church of SS. Cosmas and Damian, in the Forum,

[23] *E. g.*, portraits of Christ and series of biblical compositions.

built by Pope Felix IV (526–30) in honor of these great twin physicians, stayers of plague and pestilence—the Christian Æsculapii, famous throughout the East. Gregorovius says: "*They received an honor which had been, until then, reserved in Rome to Roman martyrs alone.*" [24]

With the introduction of Eastern saints came that of the Byzantine style, just then in process of formation, and preparing itself for its great achievement at St. Sophia. The sculptures of the ciborium and parapet in S. Clemente at Rome, executed between 514 and 535, are convincing proof of the presence of Byzantine artists in the city. Then came the Byzantine invasion, and the eighteen years that elapsed between the conquest of Sicily by Belisarius in 535 and the last heroic stand of King Teias against Narses in 553, were years that brought Rome—the centre of this conflict—into the dust, laid her in ruins, and so decimated her population that at one time it was reduced to five hundred citizens, and for forty days the city was tenanted only by animals. The so-called deliverance of Italy by Justinian's generals from the Goths, who had shown themselves kind masters and protectors of the arts, was productive of greater ruin than the invasions of Alaric's Visigoths, Attila's Huns, or Genseric's Vandals.

When a remnant of the scattered and decimated population crept back to their fallen city, they found themselves led, by the force of circumstances, to place themselves under the rule of a Byzantine governor whom they and the popes were obliged to welcome as the only protection against barbarian invasions. Rome had not been for nearly two centuries the capital of Italy, nor was it as yet the seat of a papacy politically powerful, so that its re-population was slow and accomplished largely by means of foreign blood—of Greeks and Orientals, and even of Northerners. Such had been the mortality that the senatorial class had ceased to exist. All traditions were broken. Men were no longer called by name after the elaborate Roman fashion, but merely by their given Christian name, after the Greek manner,

[24] I should qualify this statement by referring to some earlier instances of churches dedicated to Eastern Saints. Such was the church of St. Mennas, on the Ostian Way, founded in the IV or V century by a corporation of Alexandrians, and the church of St. Phokas, of whom Asterius, Bishop of Amasea, asserts that he was as much venerated in Rome as Peter and Paul.

and this casting away of so universal and radical a custom is a type of the complete change in every sphere. The centuries that followed, though they witnessed a gradual recuperation and knitting together, were in many ways grievous, and only at the close of the VIII century did Rome raise her head again. It was irksome to be under the yoke of servants of an emperor of another land. This feeling is well expressed in the "Lament for Rome," written at the time, and which begins with the lines:

Nobilibus quondam fueras constructa patronis
Subdita nunc servis, heu male, Roma ruis
Deseruere tui tanto te tempore reges
Cessit et ad Graecos nomen honorque tuus.

This Byzantine domination, after being initiated by Belisarius and Narses, was firmly established when, in answer to the prayers of Italians, the Emperor Tiberius decided to send an exarch and an army. It favored the introduction into the waste places of Rome of a large share of Byzantine elements. We have had in Rome itself a recent example of what may then have taken place on a smaller scale. When the Italians entered Rome in 1870, and made it their capital, there came an inrushing flood of North Italians and Tuscans, especially men filling government offices, the military and hangers-on of various types; and this invasion amounted, after a short while, to nearly one hundred thousand persons. Although we cannot estimate even approximately the population of Rome in the second half of the VI century, the new Byzantine element must have been strongly felt. This element consisted of a considerable number of dignitaries belonging to the Byzantine bureaucracy and military system, a garrison which developed into an important institution—the Roman army—, a considerable body of monks, a large element in the higher clergy, and a nucleus of average citizens engaged in commerce, trade, industry or letters, filling a good-sized quarter of Rome on and about the Aventine, along the banks of the Tiber. During the two centuries that followed Rome was without civic prosperity and it may be said that its activity was in great part centred in the great monasteries that arose on all sides, of which the more important seem to have been Greek. The immediate introduc-

tion and lasting preponderance of Greek names in contemporary documents prove the sweeping nature of the new immigration. The incoming Greeks were not, after a while, regarded as strangers, as were the Lombards, Saxons and Franks, but as merely another branch of the Roman stock.

It must be realized that at this time (VI cent.) the Byzantine civilization was and for several centuries remained the only complete Christian civilization. What was there outside of Byzantium but the rude Franks, Lombards, Saxons and Germans? Where in Italy, if we except the Benedictine order, can we find during the VII or VIII centuries a centre of culture that does not call Byzantium its fountain head?

In studying the vicissitudes of Rome after the middle of the VI century, it would be convenient to take it up from different points of view, such as (1) the monasteries; (2) the papacy and secular clergy; (3) the ecclesiastical and civil administration; (4) church liturgy and music; (5) language and customs of the people; (6) the arts and industries. In view of the limited space at my disposal, only suggestive and typical facts will be mentioned. The subject deserves a volume. It has never been touched. Gregorovius, in his voluminous history of Mediæval Rome, otherwise so admirable and complete, seems to be quite unconscious of the facts of Rome's Byzantine transformation.

BYZANTINE MONASTERIES AND CHURCHES IN ROME.

The Byzantine monasteries in Rome were the most prominent centres of Byzantine influence—in religion, in society, in literature, in art, and on the people at large. They extend in an unbroken line from the VI to the XI and XII centuries. Their study naturally precedes everything else. The churches attached to them and those which were built and decorated for the use of the Greek colony naturally gave employment to Greek artists, as is proved by the remaining works themselves, and thus became the models for native artists. In the East the monasteries had acquired such enormous power during the VI and VII centuries as to excite the jealousy of the emperors. The Eastern monks soon acquired a strong foothold in Rome, certainly as early as the middle of the VI century; and it is evident that a goodly pro-

portion, possibly even a large majority, of the monasteries established in the city from that time up to the close of the IX century were inhabited by Greek monks. Among the earliest were the Syrians (who furnished also several popes), with whom the monastic life had become a passion, and whose monasteries were spread over the entire East, from the desert of Scete in Egypt to the establishments of the Nestorian monasteries in China and India.

Monast. Boetianum.—According to the *Liber Pontificalis*, one of these Syrian Nestorian monasteries in Rome was broken up by Pope Donus (676–78), the monks being distributed among other monasteries: *Hic repperit in urbe Roma, in monasterio qui appellatur Boetiana nestorianitas monachos Syros, quos per diversa monasteria divisit; in quo praedicto monasterio monachos Romanos instituit.*[25]

S. Maria in Schola Graeca.—It is probable that Greek monks were placed at S. Maria *in Schola Graeca* or *Graecorum*, called afterwards S. Maria *in Cosmedin*, before the close of the century. Its foundation in the VI century is confirmed by some early sculptured decoration of its period. It was early given to the great association of Greeks established in this quarter of the city and became their main centre. It is mentioned soon among the diaconal churches and by the Einsiedeln itinerary in the VIII century,[26] and near it arose the building which was the place of assembly of the *schola*, the place where were taught ecclesiastical music, the copying and illuminating of MSS. and the practice of various other arts. In 752 it was given to Greeks who had fled from the iconoclastic persecutions.

S. Saba.—The church and monastery of S. Saba were built for some Greek Basilian monks who came from the monastery of this name in Jerusalem at some time during the VI century, probably after the middle, as S. Saba was not canonized until 532. In the *Beschreibung Roms* (293), it is asserted to have been built for the Greek monks by Pope Honorius in *c.* 630. It was called *Cella nova*, probably to distinguish it from the parent monastery in

[25] Were we tempted by its name, *monasterium Boetianum* or *Boetiana*, to refer the foundation of this monastery to the family of the great Boethius, the advent of the Syrian monks might be placed early in the VI century at the latest.

[26] *Inde per scholam graecorum; ibi in sinistra ecclesia graecorum.* Cf. ARMELLINI, *Le chiese di Roma*, pp. 391–2.

Jerusalem. Johannes Diaconus mentions it in his life of Gregory the Great. Its importance is evident from the *Liber Pontificalis:* in 767 the usurping pope Constantine, and the leader of his party, the Chartularius Gratianus, were both relegated to this monastery. Cattaneo[27] finds archæological reasons, independent of historic data, for assigning the original church to this date in the style of a capital in the left aisle, of the proto-Byzantine style, similar to the one at S. Maria in Cosmedin. The monastery was given to the Order of Cluny in 1144.

S. Cesareo in Palatio.—Interesting although perhaps the smallest of the early Greek establishments was the church of S. Cesareo on the Palatine, called *Ecclesia S. Cesarii in Palatio*, which is known to have been the imperial Byzantine chapel of the city as early as 603, in the time of Phokas. Here were placed the images of the emperors sent from Constantinople, and attached to it was one of the earliest Greek monasteries of Rome, called *Monasterium S. Caesarii graecorum.* Here the Basilian monk S. Saba the younger received hospitality when he came to Rome (989–91), sent by the patrician of Amalfi to Otho III. The choice of this church for the honor of receiving the imperial portraits was probably made in the time of Narses, and the occupation of the monastery by Greek monks was contemporary if not earlier.[28]

S. Anastasia.—Passing from the monasteries to the churches of the VI century, we borrow from the Abbé Duchesne what he says of S. Anastasia. The church of S. Anastasia, at the foot of the Palatine Hill, where it approaches the Tiber, was so close to the port that it was the first church met with by travellers coming from Africa, Constantinople and Alexandria, and before the foundation of S. Giorgio in Velabro in the VII century was the church of the Velabrum. In the earliest list of Roman churches known it takes third rank, immediately after the Lateran and Liberian basilicas—the two cathedrals of Rome. Beside this, it was the custom from before the time of Gregory the Great to celebrate three masses on Christmas day at S. Maria Maggiore, S. Anasta-

[27] *L'architettura in Italia dal VI° al XI° secolo*, pp. 38–39.

[28] DUCHESNE, *Bulletin Critique*, 1885, Oct. 15, pp. 417–24; *cf.* DE ROSSI, *Bull. Arch. Crist*, 1884–85, p. 143.

sia and S. Peter. The importance thus given in many ways to this church is due to the fact, that it was long the only and remained the principal church of the central quarter of Rome, of the Palatin, the Forum, the Port and its vicinity. The churches that were one by one founded in this quarter since the VI century were always chapels, especially diaconal chapels, and no other presbyterial *titulus* comes to compete with the old *titulus Anastasiæ*. It remains the parish church of the entire quarter. Now, this quarter attained to great importance during the Byzantine period. Not only did its population increase to the detriment of the other parts of the city, but it included the Palatine. The former imperial palace was the seat of the government, the residence of the staff, the centre of the *exercitus Romanus*, that military body which, after the disappearance of the Senate, reëstablished an aristocracy at Rome. Doubtless in the palace itself there was a sort of official sanctuary, the church of *S. Cesareo*, in which the images of the emperors were preserved. But S. Cesareo was but a chapel. The real parish church of the Palatin was S. Anastasia. This church was placed, so to speak, at the junction of the seven ecclesiastical regions of Rome. Hence the crosses carried in procession on the great *station* days—one for each region—were kept at S. Anastasia. Both S. Cesareo and S. Anastasia were privileged beyond all other Roman churches (except S. Maria Maggiore and the Lateran) as starting-places for the great processions. Their decay began with the fall of the Byzantine power, and is evident in IX century.[29]

S. Giorgio in Velabro.—The role of the church of S. Giorgio in Velabro is well defined by M. Battifol. This church, founded late in the VI or early in the VII century, is closely connected with the rise of Byzantine influence in Rome, for S. George was the most popular of all Eastern saints. Not only while Rome is governed by a Byzantine duke and the Holy See occupied by Greek Popes, but even later, when distracted between the Byzantine and the Carlovingian powers, the Roman Church continued to exercise favor and hospitality to the Greeks (see Jaffé, No. 3091, 3323), and, for instance, to ask protection of the *dromones* of Basil I. Under Zacharias (741–52) the head of S. George

[29] L. DUCHESNE, *Mélanges de l'Ec. Française*, VII (1887), 5, p. 387 seq.

was brought to the Lateran, and was transported with great pomp to his diaconal church in the Velabrum. Henceforth its influence and riches increase immensely. Doubtless it is not the seat of the *schola Graecorum* (like S. Maria in Cosmedin), neither is it a diaconal church officiated by Greek monks (like S. Anastasia)—at least there is no proof of this; but the Greeks were buried here as in a church belonging to them, and it had as its rector an archpriest who was at a certain time Greek. This is proved by a small group of Byzantine inscriptions still existing there. Two lengthy inscriptions compose the epitaph, which was written for himself by the archpriest John, born under the pontificate of John VIII (872–82), giving an account of his life.[30]

S. Andrea ad Clivum Scauri.—The monastery of S. Andrea, founded by Gregory the Great in his paternal house on the *Clivus Scauri*,[31] was within the Greek quarter, and from the beginning contained Greek monks. The name of its first abbot was Hilarion (*c.* 570), certainly a Greek. Its third abbot, Maximianus, became bishop of Syracuse—a sign of probable Greek nationality—and died in 595. When Johannes Diaconus wrote his life of Gregory it was in Greek hands, because he calls its abbot by the title *hegumen*. This was under Pope John VIII (872–82). This monastery was long among the most important and influential in Rome.

S. Lucia de Renatis and the domus Arsicia.—The monastery called *Herenatis*, or more usually *de Renatis*, received a colony of Greek monks before 649, as Duchesne notes in his edition of the *Liber Pontificalis* (II, p. 39). It appears soon to have acquired considerable importance. When the Council *in Trullo* was held in Constantinople in 680–81, one of the Roman delegates was George, a priest and monk of the monastery of Renas or Renatus. It is interesting to note that the emperor had asked Pope Agatho to send to the Council four abbots, one from each of four Byzantine monasteries (ἐκ δὲ τεσσάρων Βυζαντίων μοναστηρίων ἐξ ἑκάστου μοναστηρίου ἀββάδας τέσσαρας). The pope sent Theo-

[30] *Inscriptions Byzantines de Saint Georges au Velabre*, par M. PIERRE BATTIFOL, in *Mélanges de l'Ec. Fr.*, VII (1887), 5, 419.

[31] CARINI, *Cronichetta inedita del monastero di S. Andrea ad clivum scauri*, published in *Il Muratori*, II, p. 5.

phanes, the *higumen* of the monastery of Baias in Sicily, George of the monastery of Renas in Rome, and Conon and Stephen, priests and monks of the monastery of the *domus Arsicia*, also in Rome. These passages are interesting, as showing that the Byzantine monasteries in Rome were noted as early as the VII century. I am unable to say whether the monastery called *domus Arsicia* is to be identified with any one of the monasteries of my list.

S. Erasmo.—Pope Adeodatus (672–6) appears to have been a monk in the monastery of S. Erasmus on the Coelian. He added many buildings to it, and placed there a congregation of monks and an abbot.[32] That these were Greeks appears from several passages of the *Liber Pontificalis*, *e. g.*, in the life of Leo III (795–816), where the *higumen* is mentioned. It was taken from the Greek monks by Leo VII, who gave it to the Benedictine monastery of Subiaco by a bull of 938.

There are several Greek monasteries the date of whose foundation is not known, but as there is no record of their existence until the VIII century, it is safe to assume that they were among those founded in consequence of the wholesale monastic emigration which took place from the Eastern provinces of the Byzantine Empire during this century, as a result of the repressive policy of the Byzantine emperors.

The Syrian Pope Gregory III (731–41) built, according to the *Liber Pontificalis*, two monasteries: that of SS. John the Evangelist and the Baptist, and S. Pancratius near the Lateran, and that of SS. Stephen Laurentius and Chrysogonus, by S. Crisogono in Trastevere. It is not certain whether they were occupied at first by Benedictines or Basilians.

SS. Stephen and Sylvester.—Paul II (757–68) erected the monastery of SS. Stephen and Silvester (S. Silvestro in Capite), with a magnificent church, and filled it with Greek monks. The words used are interesting, as they connect the Greek monks with church music: *ubi et monachorum congregationem constituens, grece*

[32] *Liber Pontif.* (*in vita Adeodati*): *Sed et in monasterio sancti Erasmi situm in Celio monte, in quo concrevisse visus est predictus sanctissimus vir, multa nova edificia augmentavit, et multa ibi praedia conquisivit, et in vita sua abbatem et congregationem ibidem instituit.*

modulationis psalmodie cynovium esse decrevit, atque Deo . . . laudes statuit persolvendas. In the further passages in the *Liber Pontificalis*, where an account is given of the establishments of Greek monks, the perpetual chanting is mentioned in every case but one; whereas this is not so generally done when monasteries are spoken of that were not peopled by Greeks.[33] This question relating to church music is one to which reference will be made in greater detail at a later point.

Other Monasteries of VIII Century.—S. Gregorio, S. Prisca, S. Balbina.—Other monasteries were founded in this century. The report of the Roman council under Pope Stephen III (768–72) mentions the Greek monasteries as a class when it describes the opening session: *presente . . . . pontifice . . . . considentibus . . . episcopis . . . adsante etiam Anastasio archidiacono et cunctis religiosis Dei famulis tam latinorum monasteriorum vel graecorum cynoviorum atque proceribus ecclesiae et cuncto clero, optimatibus etiam militiae seu cuncti exercitus et onestorum civium et cunctae generalitatis populo.*" This passage is a good example of the enumeration of the different classes into which the population of Rome was divided.

Among these establishments is the nunnery of *S. Maria in Campo Martio*,[34] also called *S. Gregorio*, because it possessed the body of S. Gregory Nazianzen, brought to Rome in the VIII century. In the XII century Cencius Camerarius calls it *S. Gregorio graecorum.* This nunnery was probably important for the production of ecclesiastical vestments and hangings in Oriental style, such as were then so popular everywhere, especially in Rome. Other monasteries were those of (1) *S. Prisca* on the Aventine, which was taken from the Greeks in 1062; (2) *S. Balbina*, whose prior had the privilege of reading the gospel in Greek in the papal chapel on Resurrection day.

S. Prassede.—In the following century the most important foundation was that of the sumptuous establishment erected next to the church of S. Prassede by Pope Paschal I (817–24). The *Liber Pontificalis* says: *Construxit in eodem loco a fundamentis ceno-*

[33] One doubtful case is that of S. Cecilia, where Pope Paschal placed a congregation of monks *pro quotidianis laudibus . . . die noctuque omnipotenti Domino decantandis.* We cannot tell whether these were Greek or Benedictine monks.

[34] Gregorovius says (II, 234) that it was founded in 750 by fugitives from Constantinople.

bium quod et nomine sanctae Praxedis virginis titulavit; in quo et sanctam graecorum congregationem adgregans, quae die noctuque grece modulationis psalmodie laudes . . . sedule persolverent introduxit. This monastery was given to regular canons by Anastasius IV in *c.* 1153. In this passage emphasis is again laid on the singing of the Greek monks according to the *Greek psalmody.*

SS. Stephen and Cassianus.—Shortly afterward Pope Leo IV (847–55), in restoring the monastery of SS. Stephen and Cassianus at S. Lorenzo, filled it with Greek monks, also spoken of as proficient in psalmody, in the text that relates this fact.[35]

Other Monasteries of IX *and* X *centuries.*—The cessation of the Iconoclastic persecutions did not put an end to the incoming of Greek monks; and this was owing partly to the fact that restrictive laws were still in force against monasticism in the East, and partly to the influx due to the Greek colonization of Southern Italy, which affected even Rome. One special persecution was that of Leo the Armenian (813–20). *S. Anastasius* had a monastery in Greek hands. *SS. Alessio e Bonifacio* was one of the latest important foundations. In 977 it was handed over by Pope Benedict VII to the exiled Sergios, metropolitan of Damascus, and in it were both Basilian and Benedictine monks, some of whom became very famous missionaries.

Grottaferrata.—Greatest of all these later foundations was the famous Basilian monastery founded at the gates of Rome, in *Grottaferrata*, by S. Nilus of Calabria. This man, the most noted of all the Greek monks of Southern Italy, after a journey broken at more than one place, notably near Monte Cassino, where he and his followers staid for some time, came to Grottaferrata in the last years of the X century. This monastery soon became a centre of learning and art, exerting great influence upon the culture of Rome during the XI and XII centuries.

This enumeration and classification of Greek monasteries is doubtless far from complete. It is sufficient, however, to revolutionize our preconceived ideas and to serve as a basis for a study of the influence of Byzantium in different branches of culture,

[34] *Liber Pont. (in vit. Leonis): In quo etiam sanctae conversationis plures greco constituit monachos genere qui Deo omnipotenti eodemque martyri die noctuque laudes persolverent.*

such as art, music, literature, liturgy, ecclesiastical and social organization and popular customs and traditions.

Byzantine Art in the Monasteries—Sculptures and Textiles.—Besides having an evident part in the formation of the school of Roman music these monasteries assisted in the spread of Byzantine art in Italy. The great majority of Byzantine artists were monks and there were undoubtedly many artists in these Greek monasteries in Rome as early as the VI century, and they constantly increased in numbers. The legend of the coming to Rome of artist-monks from the East at the time of the Iconoclastic persecution after 726 and again in the IX century, takes on a far greater importance than Professor Springer believes. They were no ephemeral visitors, for they came to monasteries already established by their compatriots and doubtless also founded new establishments, for they found themselves in an atmosphere in many ways congenial. There can be hardly a doubt that to the Greek artist-monks in such monasteries as those of Rome and Ravenna, we owe the execution, for example, of the immense number of works of decorative sculpture, first carefully described by Cattaneo and shown to be in a style that prevailed from one end of Italy to the other. Rome and its province is full of traces of this decoration which give us some idea of its great extent before it was ruthlessly destroyed in the XII and XIII centuries to make way for the new ornamentation in mosaic. I hear that there has been an exhibition in Rome during the winter entirely devoted to this style of decoration, and that it has proved a revelation even to archæologists. Examples in Rome may be seen at S. Maria in Cosmedin, S. Maria in Trastevere, S. Lorenzo-fuori-le-mura, S. Giovanni a Porta Latina, S. Clemente, S. Agnese, S. Sabina, S. Giovanni in Laterano, S. Prassede, S. Giorgio in Velabro, SS. Quattro Coronati and other churches. Some of these works show the hand of Greek artists, others the inferior style of their Italian pupils. For a detailed study I can only refer to Cattaneo's oft-cited work. The earliest examples, dating from the sixth century, at S. Clemente, S. Maria in Cosmedin, and S. Saba, have been already noticed on pp. 173-176. The style prevailed in Rome and its territory until the XI century. It had been preceded by what may be called the metal style; for the

Liber Pontificalis sufficiently proves that the main early decoration of the choirs in Roman churches was of silver and silver gilt whether in the form of statues, bas-reliefs or simply architraves and balusters. This continued even after the introduction of the carved marble parapets, which seem not to have become really prevalent until the pontificate of Leo III (795) at the close of the VIII century, although they were already in common use in the churches attached to Greek monasteries.

Cattaneo has brought forward convincing proof that this style of relief marble decoration was not a native Italian style in its origin. It has been asserted even since the publication of this book that the style is distinctly an Italian growth, an invention of Lombard artists. This position has been taken by a very well known and talented writer in the field of Byzantine archæology, Strzygowski, especially in a paper published in the *Byzantinische Zeitschrift* for 1892, so that it seems necessary here to refer briefly to the proofs of its Byzantine origin. In the first place, its appearance in Italy dates from the first half of the VI century, before the Lombards had originated any art forms, while Italy was so full of desolation, war and famine, that no creation of art forms seems possible in any part of it, and it appeared at a time when Byzantine influence was beginning very strongly to show itself in other ways also. Its centres of production from this time forward are precisely the centres of Byzantine influence in Italy—Ravenna, Rome, Venice, etc. What is thus shown to be probable becomes, however, a certainty, when we inquire whether any such works are to be found in Greece, Constantinople and other parts of the Byzantine empire. Sculptured slabs in this style are illustrated in Salzenberg,[36] Pulgher,[37] Cattaneo[38] and Brockhaus[39] from the following places; Churches of S. Theodore, (Mefa Djamissi), SS. Peter and Marc (Atik Mustapha Pasha Djamissi), of the Theotokos and S. Irene at Constantinople; the monasteries of Iwiron, Lawra, Xeropotamu and others at Mt. Athos; the Cathedral at Athens and the church of Daphne near Athens, etc. The strong resemblance between all these

[36] *Alt-Christliche Baudenkmäle von Konstantinopel.*
[37] *Les anciennes Églises Byzantines de Constantinople*, pls. VI, VIII, XIV.
[38] *L'Architettura in Italia, etc.*, pp. 251–255.
[39] *Die Kunst in den Athos-Klöstern*, pl. 7, 8.

works and those executed throughout Italy during the same period, is sufficient to prove a common origin, and that this origin is to be sought for in the Orient is a fact that requires no argumentation, as we can find all the constituent elements in Byzantine churches of the sixth century. The two examples of one of the types selected for illustration in *Figures* 23 and 24 are as closely alike as two works by different hands could well be, and yet one is at Mt. Athos and the other in Venice, and both date shortly before 1000 A. D. They illustrate also the interesting fact that when the passage was made in decorative work from the

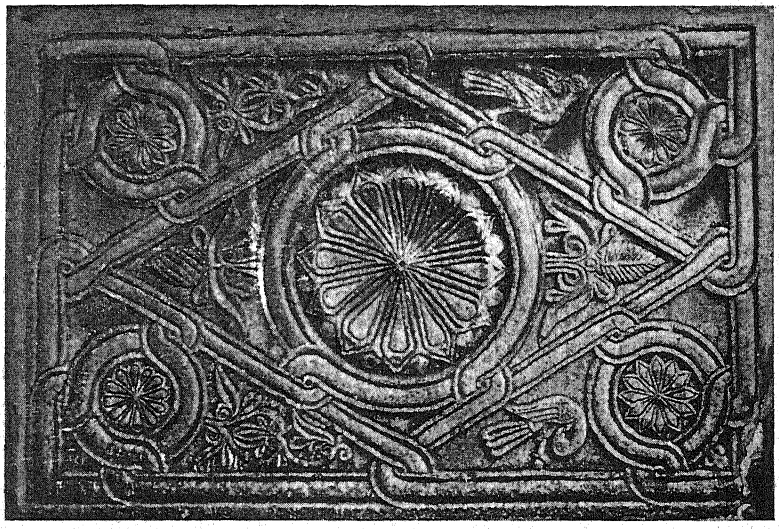


FIG. 23.—SLAB FROM FOUNTAIN AT LAWRA, MT. ATHOS. (C. 1000 A. D.)
(FROM BROCKHAUS, *Die Kunst in dem Athos-Klöstern*, PL. 8.)

system in marble low relief to that of flat mosaic inlay, the designs of the old style were often retained: it was largely a change of material, not of form. This can be seen by an examination of the combinations of circles on the Salerno pulpit (PLATE XV), which are typical of a large part of the decoration of the Italian Schools.

Beside these sculptures there still exist in Rome a multitude of frescoes and mosaics executed between the VII and XIII centuries which are also attributable to the Greek monastic artists and their school; but the question is so complex as to exclude it

from these pages, and it is, besides, a point that is too generally conceded to require further demonstration. One of the most interesting examples is the series of frescoes of the VIII cent. recently uncovered in the church of *S. Maria in Schola Graeca*. This church was the most important monument executed under the productive pontificate of Hadrian I (772–95), and the frescoes are thoroughly Byzantine, but no adequate detailed general treatment of these frescoes has yet appeared. There is, however, one class of works of art that has almost entirely disappeared but which formed the largest part of the papal gifts to churches

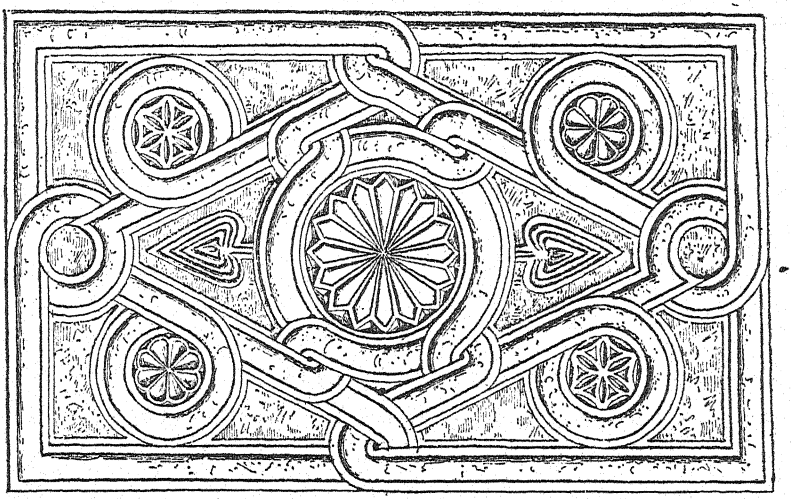


FIG. 24.—SLAB FROM THE CRYPT OF SAN MARCO, VENICE.
(FROM CATTANEO, *L'architettura in Italia*. p. 248: c. 829 or 976 A. D.)

and monasteries during the VIII and IX centuries. These are the textiles, enumerated in the Lives of the Popes (*Liber Pontificalis*) with an accuracy that shows the descriptions to be taken from contemporary records. There are thousands of veils, hangings, altar-fronts, priestly robes of every variety of technique, usually ornamented with elaborate figured or decorative compositions. The technical terms employed in the careful descriptions of these works are Greek, and in some cases have long puzzled the sagacity of commentators: such terms are *stauracin*, *periclysin*, *chrysoclavus*, *holosericus*, *spanoclystus*, *blattin*, *storax*, *etc.*

It is conceded that these textiles are of Byzantine and Oriental origin and manufacture;[40] the few remaining works of this period in various European museums prove this[41] and we know that Europe did not free herself from dependence upon Byzantium until the XI and XII centuries by the establishment of native manufactures, as at Palermo, in Flanders, and in Northern France.[42]

There are several objections to the current theory that all the textiles mentioned in the Lives of the Popes were importations from the East. The first is their immense number—reaching into the thousands—which can be realized only by reading the text of the *Liber Pontificalis* in the lives of such popes as Leo III (795–816), and Paschal I (817–24). The second is the multitude of Greek technical terms so accurately used by the Roman writer in describing them. The third is the use of the word *fecit* instead of *obtulit* in connection with the donation of almost each piece. Now, it is well known how commonly *fecit* was used in the place of *fieri fecit*, of the patron who ordered the execution of a work of art. It seems as if the text of the *Liber Pontificalis*, by using this expression, lends itself to the interpretation that, as a rule, these gifts were made by the Pope's order. Otherwise is it probable that the hangings for the churches, to be placed between the columns, and the *vela* for the altars, would be of exactly the right size; that the subjects embroidered or woven on them should so often reproduce the legend of the patron saint of the church or legends special to the Roman church (*e. g.* under Leo III); that there should be portraits and names of the Papal donor and other inscriptions in Latin (*e. g.* Leo IV)?[43] It would seem natural to conclude that they were then quite generally made to order not in Constantinople but in some one of the Greek monasteries in Rome. Were this a fact we can see how readily the workmen, being in Rome, could furnish for the

[40] GREGOROVIUS, *Gesch. d. Stadt Rom. im M. A.* II.

[41] CAHIER & MARTIN, *Mélanges d'archéologie;* LABARTE, *Les arts industriels au Moyen Age*, e. g. II, p. 420; MÜNTZ, *La Tapisserie*, p. 80; and especially MICHEL, *Recherches sur les étoffes de soie, d'or et d'argent pendant le Moyen-Age*, pp. 29–53.

[42] MÜNTZ, pp. 83–96; MICHEL, *op. cit.*

[43] *Vestem habentem tabulas chrysoclavas tres, et historiam Dominicae passionis legentem: "Hoc est corpus meum, quod pro vobis tradetur," etc.*

Papal registers lists of the pieces made, in which, being familiar with Latin, as workmen in Constantinople could not be, they transcribed accurately in Latin the Greek terms descriptive of each. It is precisely at the time of the persecution of the Iconoclasts that the great production of such work begins in Rome,[44] and the fact that a large proportion of them at this time were ornamented with sacred compositions would almost exclude the possibility of their having been made in the East, where such a violation of the new artistic law against sacred compositions was so severely punished.[45]

It is not likely that the embroidered and woven stuffs were the only works executed by the Byzantine monks among the various classes of objects of art given by the Popes to the Roman churches. The vases and vessels of gold and silver could hardly have been the product of decaying Italian art. From one end of Italy to the other there can be gathered examples of such works known from documents to have been imported during these centuries from the East or sent as gifts from Byzantine emperors to popes and monasteries.

To summarize, it seems that the Greek monasteries, which formed so preponderating a part of Roman life in the Early Mid-

[44] Under the reign of Hadrian (795). There is a tradition that the Greek nuns who, nearly a half century before, came and occupied the monastery of S. Maria in Campo Martio or S. Gregorio, did work in embroidery and needlework for the churches.

[45] Since writing these lines I find that GREGOROVIUS has suggested (*Gesch. d. Stadt Rom. in M.*, II, 378) the probability that many of these works were made in Rome by artists called from the East. He believes this to be so especially in the case of Pope Hadrian. After denying the Byzantine character of his mosaics, he continues: "*Aber jene zahllosen Prachtteppiche mit eingestickten Historien möchten Byzantinischen Ursprungs sein. Ihre Kunst stammte aus dem Orient, und wurde in Byzanz und Alexandria eifrig betrieben. Von dort kamen wahrscheinlich Künstler nach Rom, für die Päpste zu arbeiten, und während der Bilderverfolgung waren ihrer viele nach Italien ausgewandert. Die Namen der rikamirten Gewänder und Decken zeigen sowol eine grosse Mannigfaltigkeit ihres Staffs und ihrer Technik, als die Herkunft aus dem byzantinischen Reiche. Die vielen Bezeichnungen für Teppiche oder vela sind oft griechisch, oft geradezu nach ihrem Vaterland, Alexandria, Tyrus, Byzanz und Rhodus benammt,*" etc. LABARTE also (*Arts Industr.*, IV, p. 334), speaking of the Greek Pope Zacharias (741–52), and his gift of a gold altar-cloth to S. Peter, says: "*Il ne s'agit pas là d'une étoffe achetée, mais bien d'une étoffe fabriquée à Rome, dans laquelle était tissé un sujet. L'on ne peut douler . . . que le travail ne fût sorti de la main des tisserands grecs*" whom the Pope called to Rome.

dle Ages, while exercising only a limited influence in the domain of architectural construction,[45] held complete sway in architectural decoration and all decorative sculpture, in fresco and mosaic painting, in woven and embroidered artistic textiles and probably in works of gold and silver. That their sway remained uninterrupted is shown by the continuity of the style of art which they established and by their continued possession of many of their monasteries until the XI and XII centuries. New Greek monasteries of importance were even founded toward the close of the period. Such was that established in about 1000 at Grottaferrata near Rome, by S. Nilus, who had already been at the head of a number of Greek monasteries in Calabria, a region that continued until a much later period to swarm with Greek monks and hermits. We shall now prove that to such establishments as that at Grottaferrata Rome owed the introduction of the style of mosaic decoration in the XII century, thus protracting up to the close of the Middle Ages the debt that it owed to Byzantium.

MOSAIC DECORATION.

The Byzantine system of decoration in marble low relief which, as we have already seen, dominated Italy up to the XI century, was suddenly succeeded and replaced during the XII century by a magnificent system of mosaic decoration, mainly employed by the schools of Sicily, Southern Italy and Rome. So great was the sweep of renovation that almost everywhere, in order to make way for it, the old Byzantine sculptured plaques were torn down and often turned about, the smooth side being used for the mosaic inlay.[46] Not only were all the church pavements made of marble mosaics and the walls often decorated with mosaic friezes of minute glass and marble cubes, but the principal works of art within the churches were executed in this new style. Such were the pulpits, paschal candlesticks, altar canopies, choir-screens, altar-fronts, episcopal thrones, choir-seats and

[45] The galleries in the church of S. Lorenzo-outside-the-walls, S. Agnese and SS. Quattro Coronati, which are unique in Rome, appear to be due to the uniform Byzantine use of such galleries: compare the Byzantine basilicas in Thessalonica.

[46] Examples of this fact have come to light during recent years in restoring, for example, the church of S. Maria in Cosmedin at Rome and the cathedral of Ferentino in the province.

sepulchral monuments. The similarity of the design in all these works does not exclude a harmonious but endless variety of form. The very poetry of ornament is embodied in these works. Renaissance decoration appears cold and monotonous beside this wonderful association of form and color—its forms governed by an unwearying inventiveness, its colors chosen with the same matchless sensitiveness that give their special beauty to all Oriental works, from the wall decorations of S. Sophia to the modern Persian rug. We become hypnotized by their mazes of the intricate polygonal design, in which, as M. Gayet[47] says, in somewhat fantastic language, "image succeeds image, passing and repassing like phantoms, with immutable, implacable, immovable features as figures of a dream," drawn from the essence of things, and arousing sensations comparable only to those that music gives us.

While the old and the new systems appear to be so distinct—even opposite—it is interesting to again emphasize the fact that we find in the mosaic work the same geometric combinations and at times the same animal and floral forms as in the earlier relief work. The best-known of such works have been those in and about Rome, and the style has even received the name of "Cosmati" work, from a group of Roman artists that employed it. The universally accepted belief in their Roman origin—in which I shared until about three years ago—has not, I believe, been publicly opposed, although Mr. Henry Stevenson has expressed himself to me as opposed to it. In order to show the general interest of the question, I shall again refer to the words of the German critic, Prof. Springer,[48] who believes this system of decoration to be Roman, and uses this conviction as a decisive argument against the continuance of Byzantine influence in Sicily after the Norman conquest. This influence, he says, was thrown off in Sicily soon after the Arab yoke was removed. The mosaics of Monreale[49] show this reaction; sculpture developed with entire inde-

[47] *L'Art Arabe*, p. 305.

[48] Introduction to KONDAKOFF, *Hist. de l'Art Byzantin*, I, pp. 13-14.

[49] Prof. Springer quotes the inscription of a *Romanus marmorarius* in the cloister Monreale as if the artist were a member of the Roman school. But Romanus is here the name of the artist, not of the city, and is so good a Byzantine name that we need not hesitate to regard him as a Greek. Cf., Emperor Romanus Lecapenus.

pendence. And this is proved by the absolute identity of the marble incrustations in the pavements and on the walls of Palermo and of Rome, showing the strength of Roman influence and tradition over Southern Italy, and that it soon succeeds in expelling the Byzantine intrusion. Thus far Professor Springer. Now, the real conclusion to be drawn is quite different. The identity between Palermo and Rome is due to the strength and influence not of Roman, but of Byzantine art, from which both schools sprang. Sicily and the Neapolitan province on the one hand, and the Roman school on the other, produced their earliest monuments at about the same time; Rome being a few years in advance, but the Southern provinces being the first to develop the style elaborately. The mosaic plaques signed by the Roman artist *Paulus* date from about 1100, and are the earliest known: but when the Sicilian churches were erected, a couple of decades later, their rich and perfected ornamentation quite surpasses the contemporary work in the Roman province. There is also an important difference between the two schools caused by the introduction of Mohammedan influence from Egypt. As we shall see, the Copts and their Mohammedan scholars in Egypt during the XI and XII centuries borrowed this same system of decoration from Byzantine art, and developed its geometric design with a bewildering elaboration undreamed of by the Byzantine artists. The Mohammedan share in the Norman art of Sicily is being slowly recognized: the pointed arch universal in its churches, the painted ceilings, the stalactite decoration, all come from this source. From the same source come many of the characteristic designs of the mosaic incrustations, modifying the simpler Byzantine original forms. The Roman school did not feel this, or rather it felt it much later and in an indirect way through contact with the Southern school of Campania.

The conclusion to be drawn is that the adoption of this new form of decoration in the South and in Rome, so far from signalizing the triumph of Rome over Byzantium, should be regarded merely as the replacing of one style of Byzantine decoration by another—the mosaics in place of the marble reliefs. The main difference between the two processes lies in the greater inventiveness of Egyptian and Italian artists in varying the Byzantine

originals, as compared with the slavishness of their predecessors, the sculptors of the VI–XI centuries.

I shall now attempt to prove these statements by examining, first, the mosaic pavements and then the decorative vertical mosaics on the walls and church furniture.

Pavements.—The pavements of this style are probably the most beautiful ever executed, and appear to have been adopted by Italian artists slightly earlier than the various kinds of similar vertical decoration. There is a perfect similarity in style between the South Italian and the Roman schools, for in both cases the derivation is from Byzantine originals without Mohammedan admixture. Almost every church of early foundation in Rome must have received one during the wholesale rebuilding of the city during the XII and XIII centuries after Robert Guiscard's destructive attack. There still remain in Rome alone many more than a hundred such pavements, and they are to be found through its entire province, from the borders of Tuscany and Umbria to the neighborhood of Naples. The South has no series that can compare with this array. In these pavements we find almost every variety of simply geometrical designs that are to be found on the vertical mosaics of the Roman school, on walls and other architectural features, such as doorways, cornices, columns, architraves, as well as on the various articles of church furniture. It would seem as if the pavements served as models for the vertical decoration. What makes this the more probable is that in pavements it was necessary to use natural marbles for the sake of solidity, and only in very exceptional cases were any artificial cubes employed. So in the earliest vertical decoration marbles alone are used; but gradually, during the latter half of the XII century, the artificial cubes, smaller, more accurate, and of more varied tones, drove out the marble cubes, and the artists were then enabled to give far greater delicacy to their design. And here there comes to be a difference between the Roman and the South Italian schools, the former retaining the geometrical forms of the pavements, while the South Italian added two strong elements—floral designs that are due to Byzantium, and a more intricate polygonal combination of interminable interwoven lines due to Mohammedan development of a Byzantine original form.

All the Sicilian pavements belong, I believe, to the XII century—though they have been restored in the same style as late as the Renaissance; those in the cathedrals and churches of the Neapolitan and Roman provinces extend from the close of the XI to the XIII century. In Rome it would be difficult to point to a pavement that could be proved to be earlier than the time of Pascal II, (1099–1118), although it is not impossible that some may exist dating from the years immediately preceding his pontificate. It would appear, therefore, that, at some time in the XI century nearer its close than its beginning, this system of mosaic pavements, consisting of strips, circles or polygons of fine marbles surrounded by mosaic bands, was either invented in Italy or introduced from elsewhere.

The style of mosaic pavements in vogue up to the XI century in Italy was the *opus tessellatum*, composed of small marble cubes of equal size. In them were introduced compartments filled with decorated or figured compositions with real or fanciful animals and with allegorical, legendary or religious subjects. M. Müntz, whose short but full sketch[50] is the most complete treatise on this subject, gives a chronological series of these works extending from the IV or V century to the XII century, when the style ceased to be generally used, being replaced by the pavements in *opus vermiculatum*, mistakenly called *opus Alexandrinum*, which are now in question.

The earliest Italian series of these pavements in "opus Alexandrinum," with which I am acquainted, are those in Venice. They are also so remarkable for beauty and variety of coloring and for exquisite gradation of tone as to place them artistically in a class by themselves. There are a number still remaining in Venice, but the most beautiful and important are those of San Marco and the cathedrals of Murano and Torcello. Authorities vary as to the age of the pavement of San Marco, some attributing it in great part to the basilica begun in 998, while others regard it as a work of the XII century, begun only after the wall-mosaics of the domical church (1040–70) had been well advanced. I am inclined to agree with the official report of the Commission of 1858, which

[50] Published in the *Revue Archéologique*, and republished with the sub-title, *Les pavements historiés du IVe au XIIe siècle* in his *Études iconographiques et archéologiques*, 1887.

holds that the main pavement follows the lines of what must have been the earlier basilica, is cut off at the apse, and does not extend down to the arms of the Greek cross. It must therefore be earlier than the total reconstruction of 1040–70, which changed the church from a Roman basilica to a Greek cross. The cathedral of Murano was commenced in 998, but its mosaic pavement was not completed until 1140, as is proved by an inscription. At Torcello the cathedral was rebuilt from the foundations in 1008, and the pavement was begun at that time. All three are therefore works of the XI and early XII centuries. The patterns of the San Marco pavement can be seen reproduced in Ongania's great work. In each of these works we see a lingering trace of the old *opus tessellatum* in stray representations of doves, stags or other animals and birds, but the style is otherwise purely geometric, and the predominant form is the circle, around which are grouped subsidiary forms. A comparison with De Rossi's *Saggi di pavimenti antichi delle chiese di Roma*, and with the outlines in Serradifalco's *Duomo di Monreale*, and Dehli and Chamberlin's *Norman Monuments of Palermo*, will show substantial agreement in design between the three groups. The main difference lies in the fact that the Venetian artists did not care for the great circles or parallelograms of porphyry and serpentine which formed the core of the system in the other two schools, but formed their circles of a large number of radiating sections of beautifully veined and shaded marbles. In Rome and the South the effects lie in a contrast of light and shade, very distinct outlines, with preponderance of dark and solid slabs set in framework of smaller marbles. Whereas in Venice the choice of veined and delicately-colored marbles produces an effect of delicious blending. That the other style was also known in Venice is shown, for example, by a fragment exactly like a thousand to be found in Rome, now affixed to the further great pier on the north side. It will be seen later that both the rigid geometric and the delicately shaded pavements are Byzantine.

Evidently there is a common origin for all three schools, and as we must look for it in Byzantine monuments, we naturally turn to the many Greek monasteries in Southern Italy and in Rome. One of the most famous of these establishments during

the later Middle Ages was the Basilian monastery at GROTTAFERRATA, already mentioned as founded by the famous St. Nilus during the last years of the X century. Of its Byzantine figured mosaics I wrote some years ago in the *Gazette archéologique* (1883). The church itself was finished and consecrated in 1025 and restored before the middle of the XII century. The ancient mosaic pavement is of the same type as those of the Roman school: there is every reason for attributing it to the period of the construction of the church in 1025. Later in the century, in 1066, took place the famous advent to the great Benedictine centre at MONTE CASSINO of artists from Constantinople. Among these are especially mentioned those skilled in making mosaic pavements, *peritos in arte musiaria et quadrataria* who *totius ecclesiae pavimentum lapidum varietate consternerent.*[51] Comm. G. B. de Rossi is my authority for stating that a piece of this original pavement of the church at Monte Cassino still remains, I believe in the sacristy, and that it is of the same style as was afterwards used in Rome. The chronicler of Abbot Desiderius of Monte Cassino states that the abbot established a special mosaic atelier in the monastery, placing a number of young men under the instruction of the mosaicists from Constantinople, in order to spread this branch of art and prevent it from dying out in Italy. Thus undoubtedly was the crusade in favor of mosaic decoration started. These two works at Grottaferrata and Monte Cassino are, then, earlier than any others known in Italy. If we realize the breadth of Benedictine influence spreading from its capital at Monte Cassino, combined with the Basilian influence radiating from Grot-

[51] *Legatos interea Constantinopolim ad locandos artifices destinat, peritos utique in arte musiaria et quadrataria, ex quibus videlicet alii absidam et arcum atque vestibulum maioris basilicae musivo comerent, alii vero totius ecclesiae pavimentum diversorum lapidum varietate consternerent. Quarum artium tunc ei destinati magistri cuius perfectionis extiterint, in eorum est operibus estimari, cum et in musivo animatas fere autumet se quisque figuras et quaeque virentia cernere, et in marmoribus omnigenum colorum flores pulchra putet diversitate vernare. Et quoniam artium istarum ingenium a quingentis et ultra iam annis magistra Latinitas intermiserat, et studio huius inspirante et cooperante Deo, nostro hoc tempore recuperare promeruit, ne sane id ultra Italiae deperiret studuit vir totius prudentiae plerosque de monasterii pueris diligenter eisdem artibus erudiri. Non tamen de his tantum, sed et de omnibus artificiis quaecumque ex auro vel argento, aere, ferro, vitro, ebore, ligno, gipso, vel lapide patrari possunt, studiosissimos prorsus artifices de suis sibi paravit.* This text is from the contemporary chronicle entitled LEONIS, *Chronica Monasterii Casinensis*, l. III, 27. Ed. Wattenbach in *Mon. Germ. Hist.* p. 718.

taferrata and other principal Greek establishments, we have an ample explanation of the rapid adoption of the newly introduced style in this part of Italy. If now we can find in the Byzantine Orient examples of this style contemporary or earlier in date, there would no longer be the least doubt.

In a number of the old Coptic churches in CAIRO there are pavements and friezes and other decorative work in marble mosaic of this style; and although it is extremely difficult to give any exact dates, Mr. Butler, who describes some examples in his *Ancient Coptic Churches of Egypt*, assigns them to the X and XI centuries. No description of these pavements has been published, to my knowledge, but I have it on the authority of an observing friend that their style is exactly that of the Roman School. The early churches on MT. ATHOS, whose foundation dates from the late X and the course of the XI century, although to a large extent reconstructed and redecorated, retain their mosaic pavements, which are regarded by those who have studied them carefully to belong to the original structures. We reproduce (PL. XIII) from Didron's *Annales archéologiques* (VOL. XXI), a section of pavement from beneath the dome of the main church in the monastery of Iviron. The design is precisely such as is found in the churches of Southern Italy and Rome, and is not of the Venetian type. On the same plate (XIII, 2) we have given a slab from S. Prassede, Rome, to show the close similarity in design. Brockhaus[52] dates the Iviron pavement in about 976, a date which is proved beyond a doubt by the inscription on a bronze ring that encircles the central porphyry slab and records the construction of the church. Its importance warrants giving it here in full: Ἐγὼ εστερέωσα τοὺς στύλους αὐτῆς, καὶ ἰς (εἰς) τὸν αἰῶνα οὐ σαλευθήσεται. Γεώργιος μοναχὸς ὁ Ἴβηρ καὶ κτήτωρ: "*I have made fast its pillars, and it will not be shaken to all eternity. The monk George, the Ivirite and Founder.*" This George was a contemporary of St. Athanasios, the friend of the Emperor Nikephoros Phokas and the real founder of Mt. Athos, who began the monastery of Lawra in 963 A. D. The monastery of Iviron was founded in 976 by Joannes Tornikios and his Iberian relatives, Euthymios and Georgios, with the help of the Empress Theophano. Contemporary with

[52] HEINRICH BROCKHAUS, *Die Kunst in den Athos-Klöstern*, 1891.

the pavement of Iviron is that of the church of the monastery of Vatopedi, founded after 972, at the request of St. Athanasios by three inhabitants of Adrianople—Athanasios, Nikolaos and Antonios. The pavement of the church of Xenophontos belongs apparently to the first half of the XI century; that of the church of Chilandari to about 1197. These mosaic pavements were, it would seem, used in all the churches erected on Mt. Athos during the period of its early bloom (X–XII centuries). As was commonly the case at Rome a great cross divided the pavement into four main sections, each with its series of porphyry circles. Although there was certainly a current established at this time between Mt. Athos and Italy, and artists may have gone to the peninsula from the sacred mount, it must be remembered that at the beginning there was no special artistic school at Mt. Athos: it did not develop until the XII and XIII centuries. The artistic style of its early monuments may, therefore, be taken to be that of Constantinople. St. Athanasios was the confessor and intimate friend of that remarkable man, Nikephoros Phokas, before and after his accession to the throne. The emperor himself urged on and assisted in the building of the first monastery erected by St. Athanasios, that of Lawra. It is interesting to note that the reorganizing of the Byzantine domain in Southern Italy, the foundation there of several important cities peopled with colonists from Greece, the multiplication of Greek monasteries, are all due to this same emperor, Nikephoros Phokas. It may be that on this occasion, with the coming of Greek artists, the new style of mosaic work was first introduced.

It is, therefore, in the great constructions of the capital, Constantinople, that we must seek for the earliest pavements of this style, the predecessors and prototypes of those of Mt. Athos and of Italy. Unfortunately the few early fragments of pavements that still exist are either in a slightly different style, in so far as they have been described and illustrated, or are of uncertain date, and not having visited Constantinople, I cannot speak from personal observation. But at this point documentary evidence is at hand, so abundant and specific as to leave no doubt as to the fact that the great monuments of the Macedonian dynasty, from the IX to the XI century, were paved in this style. Our main

source is Constantine Porphyrogenetos, who wrote in the X century a description of the buildings erected by his grandfather, Basil I, and of the various other parts of the imperial palace. From his description we gather that in the IX century, in the times of Theophilos (829–42) and Basil I (867–86), pavements were undergoing a transformation in Constantinople, passing from the figured and tessellated to the geometric style. But before this time we can trace its beginning as far back as the time of Justinian. In the vestibule of the imperial palace, called Chalke, was a mosaic pavement in whose centre was a large circle of porphyry called *τὸ ὀμφάλιον*, upon which certain public acts or ceremonies were performed.[53] This is, with one exception, the earliest instance that I can cite of such a disk with a significance attached to it. A possibly earlier instance occurs in Agnellus' (IX century) lives of the archbishops of Ravenna, in the life of Ursus, who built the cathedral in about 400 A. D. He is said to have been buried under the porphyry slab on which the archbishops are accustomed to stand when they say mass—*pirfireticum lapidem, ubi pontifex stat quando missam canit.* It is interesting to note that the *omphalia* or porphyry disks became the most important element in the later geometric pavements. They were used in the pavements of the imperial palace, being often placed in front of the thrones, and upon them the emperors stood during certain ceremonies. When the emperor appeared in the Heliakon he stood on the porphyry circle and the patricians, generals and senators prostrated themselves before him. In other cases the procession of advancing nobles would stoop and kiss each circle as it approached the emperor. This importance given to the porphyry disks was not confined to civil structures; it passed, as we have seen above, into the ceremonial of the Roman Church. They were the most sacred spots in the churches. It is noticeable that such disks are always to be found along the central nave of the churches of the XI, XII and XIII centuries. The part they played can be imagined from one example. The *Ordo Romanus*[54] gives the order for the ceremonies connected with the coronation of the emperors by the

[53] PROCOPIUS, *De aedificiis.*

[54] *Monum. German. hist., Leges* II, p. 187. Text of the *Coronatio Romana*, as preserved by Cencius Camerarius in the *Liber Censuum.*

popes in the basilica of St. Peter. After both emperor and pope have entered the church, the pope takes his seat by the central disk, surrounded by the clergy, and before him are the emperor with his court, all seated about the disk, while the emperor makes his confession of faith. The Bishop of Porto, standing in the centre of the disk, then pronounces a prayer. The ceremony of anointing the emperor, and the giving to him the ring, crown and sceptre, took place at the altar of S. Maurice, and the principal persons present stand each in the centre of a disk—namely, the emperor, the empress and six bishops. It is especially stated in the *Ordo*, which apparently dates from the XII century, that this is done according to ancient usage—a usage probably dating in Rome to the X century, when it may have been borrowed from Byzantium to do service in the coronation of Otho I.[55]

When, in the VIII century, Torcello was built up, the new cathedral, dedicated to the Virgin, was decorated with a pavement in the centre of which was a disk which for its size and beauty was so famous that the neighboring quarter of the town was called from it, quarter of the "rota."[56]

The only part remaining of the ancient pavement of the nave of St. Sophia contains a number of these disks grouped, as they were later, around a large central circle of granite. The church of St. John, in Constantinople, which dates from the fifth century, has a pavement partly in the geometric style, illustrated in Salsenberg: its date is probably later than that of the construction of the church. Emperor Justinianos Rhinotmeros († 711) made a pavement for the gallery which he added to the palace, and it is known to have been based upon a combination of large and small disks. In the next century, under Theophilos and Basil I, the art of mosaic pavements was developed to a point of great beauty and magnificence. We may confidently assert, from a study of the texts, that the famous New Basilica erected by

[55] I would call attention to the use of such porphyry disks in the pavements of Roman buildings, such as the baths of Caracalla, although I cannot say whether in pagan times any corresponding significance was attached to them.

[56] The *Chronicon Gradense*, (XI cent.), says: *Basilicam fundaverunt in honore sancte Dei genetricis et Virginis Marie pulcherrimo pavimento ornatum, cuius medium pulchritudine sua rota quedam admodum decorabat, unde omnis habitatio qui ipsi ecclesiae proxima erat ab Aurio tribuno Rota appellata fuit.*

Basil I received a pavement analogous in style but superior in beauty to those executed later at Mt. Athos and in Italy. Its artists, however, did not exclude animal and floral forms, but worked them into the geometric design; and a relic of this custom is to be found later in the pavements at Venice already described. The pavement of the throne room of the imperial palace, made from the designs of the Emperor Constantine Porphyrogenetos (✝ 959) himself, was probably the most exquisite of any in its gradations of colors and variety of design, and probably nothing in the West resembles it except the pavements of Venice.[57] It may have been surpassed by the pavement of the church of the Palace built by Basil the Macedonian (867–86), which is described in glowing terms by his contemporary Photius, and his grandson Constantine, who say that it seems covered with silk brocades and purple carpets, so embellished is it with the thousand shades of the marble plaques that form it, by the varied aspect of its mosaic bands which form the borders of these plaques, by the exquisite grouping of its compartments, etc. For fuller details of the various pavements in the halls and churches of the palace consult Labarte, *Le Palais impérial*, and the original texts of Constantine's work on ceremonial and his description of the palace in his life of Basil.

This demonstration of the Byzantine origin of the Italian mediæval geometric pavements will seem all the more complete when supported by proofs of a similar origin for the vertical mosaic decoration of walls, columns, friezes and all articles of church furniture.

Vertical Mosaics.—The origin of vertical mosaic decoration is slightly later and its patterns appear to have been derived from those of the pavements. In fact, in the earliest examples of the Roman School the design would give no clue as to which category the work belonged to. In the beginning only natural marbles were used, as in the pavements. This was the case in the Roman and South Italian as well as in the Coptico-Mohammedan School of Egypt. Very soon the Byzantine School began to introduce the glass and composition cubes that were in use in figured mo-

[57] The descriptions are given in Photius' address and in Constantine Porphyrogenetos.

saics, and the Italian Schools followed this example at the close of the XII and the beginning of the XIII centuries. The Egyptian Schools retained the natural marbles and they also, in their love of geometric design, transferred the same pattern to other materials—to inlaid relief and open work in wood, ivory and metal, to tiles and plaster. A special branch of this general system of decoration was developed by the Moorish art of Spain and became the favorite ornament at Granada, Seville and Cordova. By this Moorish School the design, though almost identical, was carried out in enamelled tiles and plaster. While in Italy this style declined before 1300 and disappeared shortly after, in Spain it flourished through the XIV century and in Egypt even later.

The Roman School appears, to the best of our knowledge, to have produced the earliest examples in Italy. The shrine of S. Cassianus in the Cathedral of Narni appears to me a primitive work and one of great interest. The first work, however, that can be dated is an altar-front in the Cathedral of Ferentino, executed under Paschal II (1099–1013) by Paulus, the founder of the earliest of the famous family schools of Roman artists, who were to adopt the new style, develop it and make it their greatest title to fame during a period of two centuries.

About contemporary with this work are some fragments of the decoration of the church of the Greek monastery at Grottaferrata near Rome, whose pavement was mentioned above: one of these fragments, with a Greek inscription, has the date 1132. The earliest examples in Sicily and Southern Italy are not earlier than 1120 to 1130; such as the decoration of the Cappella Palatina and the Martorana at Palermo, the Cathedral of Cefalu, and, a few years later, the Cathedrals of Salerno and Ravello.

While the first Roman monuments are somewhat earlier in date than the earliest of the Southern Schools, it is important to note that the Roman School shows at first extreme simplicity and derives the designs of its vertical mosaics entirely from the pavements, developing slowly and without external influence into a richer and more varied style with the introduction of glass cubes and an increased proportion of elaborate designs in connection with the simple large slabs of marble which were at first the chief part of the ornamentation.

On the other hand the Southern Schools show only exceptionally a similar independent development. In Sicily the first monuments are the most beautiful and elaborate, and those executed later in the XII century are less perfect: the style appears to be borrowed bodily from some other school and land. Now, there were but three art influences then at work in Sicily—the Northern (Lombard and Norman)—which we may dismiss in this connection—the Byzantine and the Mohammedan. In the sphere of mosaics Byzantine influence reigned supreme in figured compositions. Did it also furnish the models for decorative mosaics? It appears to have done so for the church pavements, but on the other hand we are compelled to recognize the Mohammedan influence in the decorative mosaics which cover the lower parts of the walls in all the Sicilian churches, and in long bands surround the doors and rise to the ceiling (as at Monreale). Decorative work of a similar but less elaborate sort is to be found in Byzantine monuments. An example of this is the frieze that encircles the interior of the Church of the Saviour (Kachrije Djami) at

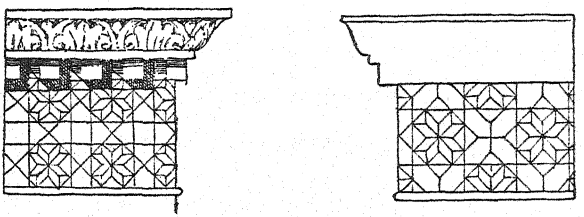


FIG. 25.—FROM BAND OF MOSAIC DECORATION ENCIRCLING INTERIOR OF CH. OF SAVIOUR (KACHRIJE DJAMI), CONSTANTINOPLE.

Constantinople (FIG. 25). This resembles in its simplicity the style of the Roman rather than that of the South Italian School. It dates either from the construction of the church in the XI century or its restoration during the XIII century. But while such decoration held but a small place in the Byzantine art to which its invention is due, it received a wonderful expansion at the hands of Mohammedan art, especially in Egypt. The Christian Copts, who always formed the bulk of the artists of Egypt under Mohammedan rule, developed the intricacies of geometrical decoration with passionate love and unwearying patience. It was marble mosaic that furnished them their best medium of expres-

sion in this branch of art. Mr. Butler's book on *Coptic Churches* has disclosed the existence of a number of works belonging, according to him, to the IX, X and XI centuries, before the style came into use in Italy at all. The recently published description of the Churches of Egypt, written in the XII century, appears to confirm the dates. Such early works are: the pulpit at the church of Abu-Sifain at Cairo, the apsidal decoration of the large and small chapels of Al-Muallakat at Cairo, described by Mr. Butler and attributed by him to about the X century. This early date for the Coptic mosaics seems confirmed not only by their primitive character but by the fact that Mohammedan buildings of Egypt of the close of the X and the early part of the XI, built and decorated by Coptic artists, show the beginnings of the same geometric style, which was developed into so wonderfully beautiful and complex a system during the succeeding centuries. I have no space here to do more than refer to this Egyptian School. Its works can be studied in special publications.[58] Can the derivation of the Italian from the Oriental style be satisfactorily proved from the monuments themselves?

Studying the question broadly, the Roman and Neapolitan Schools appear to have been founded under the sole influence of Byzantium; the Sicilian School under that of Mohammedan and Coptic Egypt; and, some time after, the Sicilian School exercised a transforming influence upon the Neapolitan, and a very slight influence upon the Roman School, toward the close of the XII century.

I shall first bring forward some proofs of the derivation of the Roman School from Byzantine originals. We have already seen that this was clearly the case in the mosaic pavements. The most interesting examples, proving the fact to be equally true for vertical mosaics, are in the Church of St. Lucia at Gaeta, and have hitherto been unnoticed and unpublished. This church, which earlier went by another name, is a basilica of early date consisting of a nave and side-aisles separated by round arches resting upon ancient columns and capitals, nearly all of them misfits. The pavement appears to have been originally of early mosaic work and only a small section of it remains in the choir. The

[58] PRISSE D'AVENNES, *Monuments du Caire.* GAYET, *L'Art Arabe, &c.*

church has been barbarously mutilated, so that only a small part of its primitive mosaic decoration remains. Against the wall which closes the side aisles, beside the main apse, is placed on both sides a parapet of marble inlaid with marble mosaics and divided into square compartments each containing a figure carved in high relief in white marble (PLATE XIV). This parapet was cut through, in order to make room for the hideous marble altar placed at the end of each aisle, and what remains has suffered badly from dampness. The work is very characteristic; it is in fact unique and of extremely primitive character. In the section which is preserved in the left aisle, we see in the upper square the eagle of St. John, its head surrounded by a circular nimbus and holding in its claws a book. In the compartment below it is the figure of a Siren, half fish and half woman, who holds in both hands her emblem—a small fish. In the section placed on the right-hand side aisle, the upper compartment contains the angel of St. Matthew and below is a winged griffin. Two compartments without sculpture still remain in part on either side of these sculptured squares. It is evident that before mutilation this parapet contained other sculptured compartments at least equal in number to those remaining, with the lion of St. Mark and the bull of St. Luke and other symbols corresponding to the Siren and the Griffin. The first peculiarity of this work that strikes anyone familiar with the decorative system of the Italian Schools is that the sculpture does not belong to any of the early Italian Schools, but has all the marked characteristics of the Byzantine style of the close of the X and the first half of the XI century. The ivory boxes and book covers, the works in gold, silver and enamel produced during this period by Greek artists, form the only base of comparison with this work. The angel of St. Matthew has all the refinement of type and softness of technique characteristic of the Byzantine works of this date. At this time nothing but the crudest and most barbarous works were being executed in Italy. This date is confirmed by several other data. In the first place the church is known to have been completed in about 1020 and it is probable that the decoration was finished at that date; then also it must be remembered that the city of Gaeta, one of the most important seaports of Southern Italy, was for a number of centuries

under Byzantine dominion and partly colonized by Greeks; that even when its consuls became practically independent, the connection with the empire of the East was not wholly broken. The presence of Byzantine artists in the city is proved, among other facts, by the erection of one of the few thoroughly Byzantine domical churches that can be found in Southern Italy outside of Calabria, the church of St. Giuseppe, which is illustrated by Schultz. The old cathedral, according to an inscription of later date, was built by one of these consuls named John, who is called in this inscription, Imperial Patrician, son of Docivilis, the consul (hypatos). The date of this ruler is the beginning of the x century.

Further proofs of early date and of Byzantine origin can be discovered in the workmanship of the parapet. In the first place, there is the uncertainty of a beginner in the use of colors and design, while the general scheme is excellent. The combinations of color are not yet effected with that degree of skill in the contrast of color and the variety of form, which are soon attained at a later date with greater practice. The colors are dull and they are principally red and green with the occasional use of yellow. It is interesting to note, every now and then, the use of occasional artificial cubes of enamel, especially of blue, gold, red and light green. I think that this introduction of glass and enamel cubes at so early a period, is a further proof of Byzantine workmanship. The use of decorative sculpture and a raised carved frame for the mosaic compartments is also a peculiarity unknown to native Italian artists and practised by Byzantine art. In the right-hand side aisle there remains a section (three sides) of the lectern of the pulpit of the church, of marble inlaid with mosaics of the same technique and general design as the balustrade and with similar occasional mixture of artificial cubes; here also the general design is excellent and the details crude.

The importance of Gaeta from its position and its history is evident; it lay upon the borderland between the Roman and the Southern Schools. Its history made it a centre of Byzantine influences and such works as those decorating the church of St. Lucia may easily have inspired both the Roman and the Southern schools with their first desire to adopt this style of decoration.

We will now examine the monuments of the Southern School for similar traces and will give in Plate XV a view of one of the finest groups,—the large pulpit, the paschal candlestick and part of the pulpit staircase and screen at Salerno. In studying the design of the magnificent series of mosaic works of the XII and XIII centuries at Sessa, Salerno, Amalfi and Ravello, and in comparing them with Sicilian works, one of the first steps is to divide the themes of decoration into classes. There appear to be two main divisions: (1) a floral design of Byzantine origin consisting of scroll work intermingled with animals and birds; and (2) geometrical designs which in their simplest form were also Byzantine in origin, but in their more elaborate development were thoroughly dependent upon Egypt. There was one decorative motif, which appeared to stand outside of these two classes and to be quite popular, especially in Sicily. It was a frieze of what appeared like battlements ending in a sort of fleur-de-lis, as is shown in Figure 29. I was very much puzzled to interpret this motif and to explain its origin, until I found that it was in universal use in Egypt. Such a battlemented frieze was invented by Coptic and Mohammedan artists as a finish to the exterior of their buildings (FIGS. 26, 27). It is employed by them first as an architectural and sculptural form and gradually finds its way as a purely decorative motif into flat surfaced decoration in inlaid marble, stucco and marble relief, *etc.*, (FIGS. 28, 29). The architectural derivation is so plain, that as no such architectural ornament can be found in Italian architecture, the Egyptian derivation of the form is incontestible. The Sicilian examples at the Cappella Palatina (FIG. 30) and Monreale (FIG. 31) are far closer to the Egyptian original design: the South Italian imitations, at Salerno, (FIG. 32) for instance, show that the artists are here further from the original source. While it may possibly be argued that the geometrical combinations have been invented by Italian artists without necessarily having recourse to Oriental models, I think that the use of this peculiar and essentially Oriental design in the Sicilian and Southern Italian Schools, while it may seem a small matter in itself, is sufficient to remove any doubt that they were not only inspired from Egypt, but that their style was an absolute importation. A strong confirmation of this lies in the fact

that every geometric combination, no matter how intricate, that can be found in the South Italian and Sicilian Schools, while often absent from the Roman works, can also be found in Egypt.

There are some works of the early Neapolitan School, such as the first pulpit at the Cathedral of Salerno and the pulpit at the monastic church of La Cava, which show what the style of the school was before it was influenced by the Sicilian School. Such

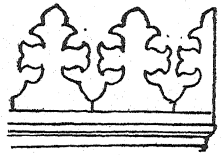


FIG. 26.—STONE BATTLEMENTS OF MOSQUE OF SULTAN HASSAN, CAIRO. (FROM FRANZ PASHA, *Bank. d. Islam*).

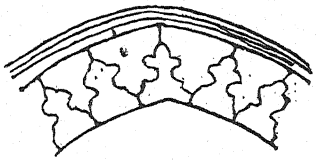


FIG. 28.—FROM ARCH OF MIHRAB IN MARBLE *Opus Sextile*, IN ASHAR MOSQUE, CAIRO.

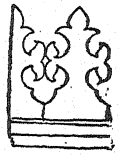


FIG. 27.—BATTLEMENTS OF MOSQUE OF SULTAN EL-GHURI, CAIRO. (FROM FRANZ PASHA).

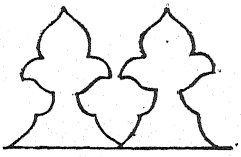


FIG. 29.—INLAID MARBLE DECORATION OF MIHRAB OF THE MUAYED MOSQUE, CAIRO. (FROM FRANZ PASHA).

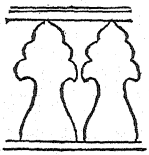


FIG. 30.—FROM MOSAIC DADO IN CAPPELLA PALATINA AT PALERMO.

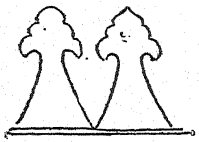


FIG. 31.—FROM MOSAIC DADO OF CHANCEL AT MONREALE, NEAR PALERMO.

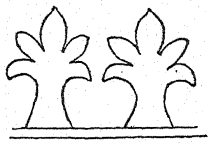


FIG. 32.—FROM MOSAIC PULPIT SCREEN, CATHEDRAL OF SALERNO.

works date from between 1150 to 1170, but as soon as the completion of the first great series of churches in Sicily, left a large number of artists—Arabs, Copts and Greeks—free to prosecute other labors, they undoubtedly were called or sent native pupils to different parts of the southern mainland and revolutionized the more simple style then prevalent. All works executed after 1190–1200 are in the new style.

Recurring to my assertion that the floral designs in vertical mosaics seem to have been of Byzantine origin, I will refer to one description of such decoration in the buildings at Constantinople dating from the IX century. Constantine describes the beautiful mosaic pavement of the Emperor Basil's bed-room, and then says that the lower part of the wall on all sides was covered not with plaques of various marbles, but with cubes of glass of many colors representing varied floral designs. The text of the Monte Cassino chronicle cited on p. 195 (Note 51) lays great stress upon the ability of the mosaicists from Constantinople in executing floral decoration of every variety interspersed with animals, and thus shows how this element of the style acquired a foothold in Italy. Illuminated Byzantine MSS. of this and the following centuries are full of this floral scroll work, with birds and animals, and similar work is found on the contemporary ivory boxes and enamels.

Italy was, then, a reflection of the Orient in this branch of mosaic decoration, and it usually fell short of its models; it lost the suppleness, the variety and the softness of Byzantine design, and in the use of geometric patterns to which it confined itself it attained only exceptionally to that perfection which we find in Egypt and in Sicily.

[*To be continued.*]

A. L. FROTHINGHAM, JR.

Princeton, January, 1895.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.

A SACRIFICIAL CALENDAR FROM THE EPAKRIA.

[PLATE XVI.]

In the excavations at Koukounari, in the Attic Epakria, a report of which will be given in the *Fourteenth Annual Report of the American School of Classical Studies at Athens*, we had the good fortune to find at the end of the first half-hour of work an important inscription.

This is cut on a *stele* of Pentelic marble, in letters averaging .006 m. in height. Beta runs up to a height of .008 m., while Omicron is only .004 m. high. The extra height of Beta is doubtless due to the fact that only so could it well be cut without making mere breaks in the place of the two loops.

The *stele* was inscribed on both sides, but only on the side which we found turned downward and resting on a large threshold, and which is here represented, could anything be read. A few traces of letters on the other side, from which with some probability the word οἷς may be made out, and some price-marks, show that the same subject was treated on that side.

The side here given contains parts of fifty-six lines, although the first line affords only two letters. How much of the stone is broken off above and below cannot be told. At the sides the original edge is preserved, so that we know that the taper of the *stele* was very slight, giving a breadth at the bottom of the pavement of .49 m. and at the top of .485 m. The length is .60 m. The thickness varies between .10 m. and .06 m. being thinner at the top and toward the right, so that there is a distinct slope toward the right upper corner when the stone is laid on the table for reading. There is a break on the right at the top, leaving a gap which ends with the 21st line, the 22d line being entire at the end. At the 4th line the gap is 1.05 m. wide. Toward the bottom

- -]ιο[- - - - - - - - - - - - τάδε ὁ δήμαρχος
- - - - - - - - - - - - - - - - - - - ὁ Μαραθωνίων θύει ἐ[ν - - - - - - - - - - - - - - -
- -ηνται δέκα ἡμερῶν ἥρῳ[- - - - - - - - - - -
- - - τρίτης τ]ριμήνο χοῖρος ΗΗΗ τράπεζα τῷ ἥρῳ - - - - - - - - - -
Γαμηλιῶν]ος Βοηδρομιῶνος πρὸ μ[υ]σ τ[η]ρ[ίων - - - - - - -
- - - - - - π]ρακτηρίῳ κριὸς ΔΗΗ βοῦς ΠΔΔΔΔ οἷς ΔΗΗ Κουροτρόφῳ [- - - - - -
Ἀνθεστηριῶ]νος δευτέρας τριμήνο Π ο σ ι δ ε ὼ [νος - - - - - - - - -
- - - - - -] παρὰ τὸν πύργον οἷς ΔΗΗ βοῦς Η▨ οἷς ΔΗΗ ἡρωίνῃ [οἷς ΔΗ ἱερώσυνα
Ἐλαφηβολιῶ]νος ΠΗΗ Γῇ ἐγ γύαις βοῦς κύουσα ΠΔΔ[ΔΔ ἱερώσυνα ΗΗ
- - - - - - -]ἐν ἀγορᾷ κριὸς ΔΗΗ Τελετῇ σπυλια ΔΔΔΔ
- - - - - θύ]ει Διὶ ὁρίῳ οἷς ΔΗΗ τρίτης τριμήνο Γαμηλ[ιῶ ν]ος
- - - - - - -]ιᾳ οἷς ΔΗ Δαίρᾳ οἷς κύουσα ΔΠΗ ἱερώσυνα Η
- - - - - - - -]τάδε τ ο ύ τ ω ν ἐν Γῇ ἐπὶ τῷ μαντείῳ οἷς ΔΗ Διὶ ὑπ[άτῳ οἷς ΔΗΗ
- - - - - - ἐ]νι[α]υτοῦ ἕκαστον Ἰόλεῳ οἷς ΔΗΗ Κοροτρόφῳ χοῖρο[ς ΗΗΗ τράπε-
- - - - - - τ]ὰ ἑξῆς ὡς γέγραπ τ α ι ξα Η ἱερώσυνα ΗΗΙC ἥρῳ Φηραίῳ [οἷς ΔΗΗ
- - - - - - - -] τον τὸν ἐν τοῖς (?) ἡρωίνῃ οἷς ΔΗ ἱερώσυνα ΗΗΗ
- - - - - - - π]αρὰ τὸ Ἐλευσίνιον Ἐλαφηβολιῶνος δεκάτῃ ἱσταμένο [Γῇ ἐπὶ τῷ
- - - - - - - -]ῳ ἐν Κυνοσούρᾳ μαν[τε]ίῳ τράγος παμμέλας ΔΠ ἱε[ρώσυνα Η
- - - - - - - παρὰ] τὸ Ἡράκλειον τετάρτης τριμήνο Μουνιχιῶνος αρ[- - - - - -
- - - - - - - - - -]τ ε τ ά ρ τ η ς νεχῳ βοῦς ΠΔΔΔΔ οἷς ΔΗΗ ἡρωίνῃ οἷς ΔΗ ἱε[ρώσυ-
τ ρ ι μ ή ν ο Μ ο]υνιχιῶνος να ΠΗΗ Νεανίᾳ βοῦς ΠΔΔΔΔ οἷς ΔΗΗ χοῖρο[ς ΗΗΗ
- - - - - - - - - -] νου οἷς ΔΗΗ ἡρωίνῃ οἷς ΔΗ ἱερώσυνα ΠΗΗΙC
- - - - - - - - - -]πρώτης τάδε ὁ δήμαρχος ὁ Μαραθωνίων θύει ἥρῳ ἐν
τ ρ ι μ ή ν ο Ἑκα]τομβαιῶνος [ ]ρασιλείᾳ οἷς ΔΗΗ τράπεζα Η ἡρωίνῃ οἷς ΔΗ
τρίτῃ ἱστα]μένου ἥρῳ παρὰ τὸ Ἑλλώτιον οἷς ΔΗΗ τράπεζα Η ἡρωί-
Ἀπόλλωνι ἀπ]οτροπαίῳ αἶξ ΔΗΗ νῃ οἷς ΔΗ
δευτέρας τ ρ ι]μ ή ν ο Π υ α ν ο ψ ι ῶ ν ο ς Θαργηλιῶνος Ἀχαίᾳ κριὸς ΔΗΗ θήλ[ε]α ΔΗ
- - - - - - - -] ων οἷς κύουσα ΔΠΗΗ ἱερώσυνα ΗΗΗ Μοίραις χοῖρος ΗΗΗ ἱερώ[σ-

τετάρτης τρι]μήνο Μουνιχιῶνος υνα IC
- - - - - - - - - -]ῃ αἶξ ΔΗΗ Ξκιροφοριῶνος πρὸ Ξκίρων Ὑττηνίῳ τὰ ὡρα[ῖ-
- - - - - - - - - -]ειον ΔΗΗ (?) α οἷς ΔΗΗ Κοροτρόφῳ χοῖρος ΗΗΗ ἱερώσυνα ΗΗΙ
- - - - - - - - - -]τετάρτης Τριτοπατρεῦσι οἷς ἱερώσυνα ΗΗ Ἀκάμασιν
τ ρ ι μ ή ν ο Μο]υνιχιῶνος οἷς ΔΗΗ ἱερώσυνα ΗΗ
Διὶ ἀποτροπ]αίῳ αἶξ ΔΗΗ τάδε τὸ ἕτερον ἔτος προτέρα δραμοσύνη Ἐκατ-
- - - - - - - - - - -]οἷς ΔΗΗ ομβαιῶνος Ἀθηναίᾳ Ἑλλωτίδι βοῦς ΠΔΔΔΔ
- - - - - - - - - -]νει οἷς ΔΗΗ οἷες τρεῖς ΔΔΔΗΗΗ χοῖρος ΗΗΗ ἱερώσυνα ΠΗ[- -
πρώτης τριμή(?)]ν[ο] Κοροτρόφῳ οἷς ΔΗ χοῖρος ΗΗΗ ἱερώσυνα Η [- -
- - - - - - - - - Δαφνηφόροις ΠΗΗ
- - - - - - - - -]οσ[ ]νη τάδε τὸ ἕτερον ἔτος θύεται μετὰ Εὔβουλον ἄρχ[ο-
δ ε υ τ έ ρ α ς τριμ]ήνο Πυανοψιῶνος ντα Τετραπολεῦσι ὑστέρα δραμοσύνη
- - - - - - - - - β]οῦς ΠΔΔΔΔ Ἑκατομβαιῶνος Ἀθηναίᾳ Ἑλλωτίδι οἷς Δ[Η
τ ρ ί τ η ς τ ρ ι μ ή]νο Γαμηλιῶνος Κοροτρόφῳ χοῖρος ΗΗΗ ἱερώσυνα ΗΙC
- - - - - - - - - -]δῳ ὗς κύουσα ΔΔ Μεταγειτνιῶνος Ἐλευσινίᾳ βοῦς ΠΔΔΔΔ
τετάρτης τριμήνο]Μουνιχιῶνος Κόρῃ κριὸς ΔΗΗ χοῖροι τρεῖς ΠΗΗΗ ἱερώ[σ-
- - - - - - - - - -]Νύμφᾳ Εὔνει αἶξ ΔΗΗ υνα ΠΗIIIIC ἀλφίτων ἑκτεὺς IIII οἶνο χο[ῦς
ἱερώσυνα(?) - - - -] Κοροτρόφῳ οἷς ΔΗ ἱερώσυνα Η
- - - - - - - - - - - - - -] ῳ κριὸς ΔΗΗ Διὶ ἀνθαλεῖ οἷς ΔΗΗ ἱερώσυνα ΗΗ
- - - - - - - - - - - -] αἶξ ΔΗΗ Ἀνθεστηριῶνος Ἐλευσινίᾳ ὗς κύουσα ΔΔ
- - - - - - - - - - - -]ῃ κριὸς ΔΗΗ ἱερώσυνα ΗΙ Χλόῃ παρὰ τὰ Μειδύλου ὗς κύου[σα
- - - - - - - - - - - -]ουβάτῳ αἶξ ΔΗΗ ΔΔ ἱερώσυνα Η ἀλφίτων ἑκτεὺς IIII οἶνο χ[ῶς
- - - - - - - - - - o]ῖς ΔΗΗ Ξκιροφοριῶνος πρὸ Ξκίρων Γαλίῳ κριὸς Δ[ΗΗ
- - - - - - - - - -]ολει οἷς ΔΗ ἱερώσυνα ΗΗ φρέατος ΠΗ Τριτοπατρεῦσι
- - - - - - - - - -]νος τράπεζα Η
- - - - - - - - - - -]οῖς ΔΗΗ Τρικορυνθοῖ τάδε ὅσα ἔτη πρώτης τριμήνο
Ἀθηναίᾳ Ἑλλω]τίδι χοῖρος ΗΗΗ Μεταγειτνιῶνος Ἡρ[ᾳ] βοῦς ΠΔΔΔΔ οἷς ΔΗ
- - - - - - - - - - - - - - - - - -] [- - - - - - - - - - - - - -] Κουροτρόφῳ

of the gap it becomes easy to supply missing letters. On the left side, although the edge of the stone remains, there is a surface break of varying width running down the whole length. It is .06 m. wide at the 7th line, .115 m. at the 47th, .09 m. at the 52d. A maximum of twelve letters is missing where this gap is widest; but as the inscription is not cut *stoichedon*, there is in most cases a choice ranging between nine letters and twelve. The inscribed surface of the stone is .39 m. broad at the 23d line and .40 m. broad at lines 52–54.

A curious feature of the inscription is that it is divided very unevenly into two columns, the right-hand column being about double the width of the left-hand column. Furthermore, the columns overlap somewhat, and some lines look as if they ran continuously across the stone, there being absolutely no intervening space between the last letter of the first column line and the first letter of the second column line.

The right-hand column may practically be read entirely. The left-hand column is more difficult to restore than might be expected with the help afforded by the other column. But even here a good deal may be provisionally supplied.]*ουβάτῳ*, in line 50, is especially tantalizing.

Restorations, Column 1.

2. *π*]*ρακτήριος* is used as an epithet of *Τύχη*, Aesch. *Suppl.*, 523.

4 ff. *τρίτης*, which entails the following month names, was suggested by *τετάρτης*, 20. But, as at 27–29 a quarter is omitted in the enumeration, the restoration is not certain. It fills the space, however, better than *δευτέρας*, with the month names of the second quarter.

25. *τρίτῃ* is given simply as one way of filling the space.

26. *Ἀπόλλωνι*[1] is demanded by the space, whereas in 34 there is room only for *Διί* or *τῷ*.

39. *δραμοσύνη* is probable, but we know next to nothing of the connection at this point.

52. *Διὶ Εὐβ*]*ολεῖ* would naturally be supplied, except that it would not fill the whole space.

55. *Ἀθηναίᾳ Ἑλλω*]*τίδι* seems the only proper restoration.

[1] *Ἀποτρόπαιος* as epithet of Apollo, Ar. *Vesp.* 161; *Av.* 61; *Plut.* 359, 854.

Column 2.

5. μυστηρίων is corroborated by its connection with Βοηδρομιῶνος.

13, 15. οἷς ΔΓ is selected simply as one way of filling up the space.

17. Γῆ ἐπὶ τῷ is somewhat crowded, but as Γῆ appears in 13 with this epithet, and as she was essentially a mantic divinity (*Cf.* Aesch. *Eum.*, 2, τὴν πρωτόμαντιν Γαῖαν), the reading may well stand. It is also difficult to get a name shorter than Γῆ.

19, 20. The difficulty of supplying the five or six missing letters at the end of 19 is increased by the fact that the clear ΝΕ at the beginning of 20 seem cut with the point of a knife, mere scratches, while Χ, given as the next letter, is quite doubtful.

The first line which is really of account (line 2), with the help of line 23, tells us that the demarch of the Marathonians sacrifices something. We soon see that we have a series of offerings to divinities with prices and certain specified dates. All the Attic months except Maimakterion are mentioned.[2] The year is divided into quarters (τρίμηνοι). At lines 34 and 40 there is a division of the sacrifices into τὸ ἕτερον ἔτος, προτέρα δραμοσύνη and τὸ ἕτερον ἔτος, ὑστέρα δραμοσύνη. The word δραμοσύνη, so far as I know, is not used elsewhere. It is probably a ritualistic term, and may be translated "course."[3] τὸ ἕτερον ἔτος probably means "the alternate year." The "first course" is to begin at once, and the "second course" the next year, and they are to alternate.[4]

The first question in regard to the inscription is whether it is a sacrificial calendar of offerings to be made, or a record of offerings already made. The minute account, descending to such

[2] We have in line 51 the settlement of the date of the festival called Skira, in the month Skirophorion, which calls for a correction of Liddell and Scott (Lex., 7th ed., s. v. Σκίρα), and of Mommsen, *Heortologie*, p. 287 ff., which put it in Pyanepsion.

[3] It is probably derived from δράω. With the same right as that by which we have from the stem √πραγ πρᾶγμα and πολυπραγμοσύνη, we may have from √δρα δρα δραμοσύνη as well as δρᾶμα.

[4] In the inscription from Cos in *Jour. of Hell. Studies*, IX, p. 328, we have three times (at lines 10, 14 and 22), after one provision for sacrifice, another offering prescribed with the phrase τὸ δὲ ἄτερον ἔτος.

details as half obols, and the indicative mode of the verbs, make it look at first sight as if we had one of those accurate Attic accounts of expenditures so well known from the Corpus.[5] But in spite of this there seems no reason to take it as anything else than one of those sacrificial calendars, of which there were a great number at Athens, mentioned by Lysias in the oration against Nicomachus, as well known.[6] Such calendars must have been common enough at every place where sacrifice was made on a large scale. We have several fragments of such calendars from various places. Notable are the following:[7]

Fragments from Myconus, Dittenberger, *Sylloge*, No. 373.

Fragments from Cos, *Jour. of Hell. Studies*, vol. IX, p. 323 ff.

CIA. I, 4, 5. 533, 534. II[1], 610, 631, 632. III[1], 77.

Inscr. in Brit. Mus., I, 73.

The general similarity of the whole group makes it difficult to separate any of them as belonging to a different class. The indicative mode is used in the Cos and Myconus calendars, interspersed among the greater bulk of imperatives and infinitives. A sum of twenty drachmas for victims is mentioned in the Myconus calendar, and in *CIA.* II[1], 610 and 631, the prices are given with much the same minuteness of detail as here.

In this inscription, ὡς γέγραπται of line 15, looks like a provision to which conformity is to be exacted. Similarly in the Cos calendar stands Ῥέᾳ ὅις κυεῦσα καὶ ἱερὰ ὅσσαπερ τοῦ Πεδαγειτνίου γέγραπται.

The following is a list of the divinities to whom offerings are made:

Ἀθηναίᾳ Ἑλλωτίδι.
Ἀκάμασιν.
Ἀχαίᾳ.
Γαλίῳ.
Γῇ.
Γῇ ἐγ γύαις.
Γῇ ἐν Κυνοσούρᾳ.
Γῇ ἐπὶ τῷ μαντείῳ.

[5] *E. g.*, *CIA.* II[2], 835, 836.

[6] *Lys.*, XXX. 17. Θύειν τὰς θυσίας ἐκ τῶν κύρβεων καὶ τῶν στηλῶν κατὰ τὰς συγγραφάς.

[7] *Cf.* J. PROTT, *Fasti Graecorum Sacri.*

Δαίρᾳ.
Διὶ ἀνθαλεῖ.
Διὶ ὁρίῳ.
Διὶ ὑπάτῳ.
Ἐλευσινίᾳ.
Ἥρᾳ.
Ἥρῳ.
Τῷ Ἥρῳ.
Ἥρῳ Φηραίῳ.
Ἥρῳ παρὰ τὸ Ἑλλώτιον.
Ἥρῳ ἐν . ρασιλείᾳ.
Ἡρωίνῃ.
Ἰόλεῳ.
Κόρῃ.
Κοροτρόφῳ.
Μοίραις.
Νεανίᾳ.
Νύμφᾳ Εὐεῖ.
Τελετῇ.
Τριτοπατρεῦσι.
Ὑττηνίῳ.
Χλόῃ παρὰ τὰ Μειδύλου.
]ολει.
]ουβάτῳ.
]παρὰ τὸν πύργον.
]παρὰ τὸ Ἡράκλειον.
]παρὰ τὸ Ἐλευσίνιον.
]τῷ ἐν Κυνοσούρᾳ.
]ἐν ἀγορᾷ.
Ἀπ]οτροπαίῳ.
Π]ρακτηρίῳ.

It will be seen at once that the main interest of the inscription lies in its large number of interesting and unusual names. Some of them, so far as I have been able to ascertain, do not occur elsewhere. Such are:

Ζεὺς ἀνθαλεύς.
Γῆ ἐγ γύαις.

Νεανίας.
Νύμφη Εὐΐς.
Ἥρως Φηραῖος.
Γάλιος.

Ἀνθαλεύς presents Zeus apparently in the rôle of a farmer, which fits well the rurality in which the whole inscription is steeped. Γῆ ἐγ γύαις, a phrase comparable to Διόνυσος ἐν Λίμναις, is another case in point. Εὐΐς is easily seen to be derived from the Bacchic cry, but who is Νεανίας? Γάλιος and Ἥρως Φηραῖος are equally obscure. Possibly some light may come on the latter name from the fact that Artemis had the surname Φηραία at Argos and Sicyon.[8] There is also a quaint doubling of some persons. Ἀκάμαντες seems unheard of. Perhaps it is equivalent to Ἀκαμάντιδαι. Τριτοπατρεῖς is less striking, as we have the plural in *CIA.* II², 1062.[9] But Cicero[10] speaks of Tritopatreus as the brother of Dionysus and Eubouleus. Is it possible that Δαφνηφόροι, in line 38, is a similar plural for Apollo and one or more doubles? In that case the dative might be explained on the supposition of the omission of the mention of the victim, as in line 4 after τράπεζα, and in 32 after οἷς, the price is omitted, perhaps by carelessness of the stone-cutter.

Ἑλλωτίς, as an epithet of Athena, has a flavor of antiquity. It carries us back at least as far as the Phœnicians. It was a name of Europa[11] as Ἑλλώτια was the name of a festival in Crete.[12] It was also the old name of Gortyna in Crete.[13] The same may be said of Ὑττήνιος, for Ὑττηνία was the ancient name of the Marathonian Tetrapolis.[14] Ἀχαία, as an epithet of Demeter, the "mourning mother," and Δαίρα, as an epithet of Persephone,[15] are at least rare. The same may also be said of Κουροτρόφος as a substantive, although it is common enough as an epithet of Ge,[16]

[8] PAUS., II, 23, 5.
[9] *Mitt. Deutsch. Arch. Inst. Athen*, IV (1879), p. 287.
[10] *De Nat. Deorum*, III, 53.
[11] *Et. Mag.*, *s. v.* Ἑλλωτίς. [12] HESYCHIUS, *s. v.* Ἑλλωτίς.
[13] STEPH. BYZ., *s. v.* Γόρτυν.
[14] *Ibid*, *s. v.* Τετράπολις. See W. GURLITT, *De Tetrapoli Attica.*
[15] Persephone appears again under her usual name, Κόρη, and Demeter probably under the name Ἐλευσινία and Χλόη, if not under Κουροτρόφος.
[16] PAUS., I, 22, 3. AR. *Thes.*, 299. SOLON, *Frag.*, 43 (Bergk).

and later, perhaps, of Demeter.[17] In *CIA.* II, 481, line 59, it is indeed used substantively referring to Ge.

The designation Χλόη παρὰ τὰ Μειδύλου[18] reminds one of similar designations of locality in the inscription given in *Eph. Arch.*, B′. p. 362: πρὸς τῷ Μύρμηκι and πρὸς τῷ ἀνδροφόνῳ Κώνῳ. It belongs to a community where everybody knew everybody else.

Τελετή, the daughter of Dionysus and Nicaea,[19] is, if not old, an unusual figure.

There is another list of names that is redolent of Marathon. ὁ δήμαρχος ὁ Μαραθωνίων, twice repeated, would be enough. But we have also:

Τρικόρυνθος.
Τετραπολεῖς.
Τὸ Ἡράκλειον.
Ὑττήνιος.
Ἑλλωτίς.
Ἐν Κυνοσούρᾳ.
Ἰόλεως.

The Herakleion is probably the identical Herakleion mentioned by Herodotus (VI, 108, 116) as the place where the Athenians awaited the attack of the Persians. Ὑττηνία was, as we have already seen, the ancient name of the Marathonian Tetrapolis. The first explanation of the word Ἑλλωτίς, given by the scholiast to Pindar, *Ol.* XIII, 56, is τὴν προσηγορίαν ταύτην ἐσχηκέναι φασὶ τὴν Ἀθηνᾶν ἀπὸ τοῦ ἐν Μαραθῶνι ἕλους ἔνθα ἵδρυται.[20] That Κυνοσούρα is the point closing in the bay of Marathon on the northeast seems in this connection more than possible. Iolaus is prominent enough in the *Heracleidae* of Euripides, where in the plain of Marathon he defends the persecuted children of

[17] *CIA.* III, 372, 373. Inscriptions on chairs in the Theatre of Dionysus at Athens.

[18] παρά with the acc. in this phrase, and in παρὰ τὸν πύργον, παρὰ τὸ Ἑλλώτιον, παρὰ τὸ Ἡράκλειον and παρὰ τὸ Ἐλευσίνιον, which are similar examples of designating position, seems to prove that the distinction between παρά with acc. and παρά with dat., on which lexicographers are fond of insisting, is somewhat fanciful.

[19] NONNUS, XLVIII, 886. See Τελετή on a relief in Bötticher, *Baumkultus der Hellenen*, Fig. 48. Athenian Central Museum, No. 1390.

[20] *Et. Mag.*, s. v. Ἑλλωτίς.

Heracles. In fact, that plain was so associated with Heracles[21] and his train that, according to the scholiast to Soph. *O. C.* 701, the Spartans saved the Tetrapolis in their invasions of Attica during the Peloponnesian War, *διὰ τοὺς Ἡρακλείδας*. The temptation is strong to bring *παρὰ τὸν πύργον* also into connection with the foundations in the middle of the plain of Marathon now known as the *πύργος*. But it is better not to weaken a strong case with mere possibilities.

Was our stone, then, set up originally in the Marathonian plain and afterwards brought up to the place where we found it? At first glance it almost seems as if it must be so. And yet so strong is the presumption that a large *stele* remains where it is set up, that it seems necessary to account if possible for its original presence here. Perhaps Milchhöfer's theory, that here lay Hecale,[22] is correct. In that case we have a centre for sacrifice for all the demes lying round about. For Plutarch (*Thes.*, XIV.) says: *Ἔθυον γὰρ Ἑκαλήσιον οἱ πέριξ δῆμοι συνιόντες Ἑκάλῳ Διὶ καὶ τὴν Ἑκάλην ἐτίμων*. This case of other demes sharing in the sacrifices of the deme of Hecale is characterized thus by Stengel in Müller's *Handbuch*, v. 3, p. 83: "Eine seltene Ausnahme ist es dass andere ganze Demen sich betheiligen." Now, if any demes were to share sacrifices with a deme that lay at Koukounari, the most natural candidate for such communion was the Marathonian Tetrapolis. It is just about two hours' walk from either the northern or the southern part of the Marathonian plain to this point. In fact, from Vrana it is not more than an hour and a half. The inscription itself is singularly tantalizing on the point of locality. Line 2 says that the demarch of the Marathonians is to sacrifice *ἐν*—but just what we wish to know is broken off. Again, in line 23, when we think the same chance is coming again, the phraseology is changed just at the critical point, and it

[21] PAUS. I, 32, 4. *Μαραθώνιοι φάμενοι πρώτοις Ἑλλήνων σφίσιν Ἡρακλέα θεὸν νομισθῆναι.* The association of Heracles and Athene Hellotis suggests that Heracles, who came to Athens with such popularity in early times as to have several temples, and to become the prominent figure in the old poros gable sculptures, came from Marathon, where he was brought to shore by the Phœnicians. This is quite as likely as an advent from Corinth.

[22] *Demenordnung des Kleisthenes*, p. 21 f. For a contrary view see LOEPER, *Mitth.*, 1892, p. 384 f.

is now *θύει Ἥρᾳ ἐν*. What is still more disappointing is that the name which follows is an entirely unknown one, . *ρασιλεία*, with one letter lacking at the beginning (perhaps *Φρασιλεία*).

Our *stele* does indeed contain allusions to some sacrifices that were actually performed in the Tetrapolis. *Τρικορυνθοῖ*, in line 54, must be taken as a locative, since the datives of the second declension throughout the inscription end in *ῳ*.[23] But where there was a great central point for sacrifices for the neighbors, there might well be set up a general record of sacrifices to be made, including other places than this. It may be that duplicates of this *stele* were set up at other places near by. Would that we had found the heading!

It is true that our *stele* does not even name Hecale, but we have only a part of the original bulk of the inscription, and it must, I think, be conceded that Milchhöfer's identification has gained greatly by our discovery of three more reliefs[24] in addition to the two which he had already found at the same place.

Besides, this place, in spite of the objections of Loeper (*l. c.*), is the natural last halting-place on the direct road from Athens to Marathon, the natural scene of Theseus' taking his last refreshment from the nymph Hecale before descending into the plain to meet the Marathonian bull.[25]

If this identification be accepted, we get a very natural explanation of the Heroine who is so often referred to in the inscription. She might well be Hecale. The Hero without an epithet might then be Theseus. If, however, we seek our hero in the Marathonian plain, we are embarrassed by the multitude of candidates. The eponymous hero Marathon, Heracles, Echetlaeus, or even others of the Marathonomachoi, might claim the honor.[26]

[23] For *οι* used as a dative ending along with *ῳι*, see CAUER, *Delectus*, No. 138, line 16: *ἐπὶ Κηναίωι ἐν τῶι ἱερῶι*. This is, to be sure, not Attic, but Eubœan. But see MEISTERHANS, *Gram. Att. Inschr.*, § 21, 11. In regard to the place, it is striking that at Trikorynthos, the especial place of refuge for the Heracleidae (DIOD. SIC., IV. 57), Hera, the great enemy of Heracles, should be worshipped. The reconciliation must have been complete.

[24] One of the reliefs has a group that might be considered to be Hecale welcoming Theseus. From the joined hands of the two larger figures seems to proceed downward something like a club, while a smaller figure of an adorante stands by. We noticed the club before we thought of this application of the relief.

[25] PLUT., *Thes.* XIV. [26] PAUS., I, 32, 4, 5.

We need exercise no violence to exclude this inscription from a Marathonian *provenance*, for if it comes from Marathon it is an important document in the somewhat obscure history of the Tetrapolis. Of considerable interest in this connection is the allusion in line 39 to Euboulus as archon for the inhabitants of the Tetrapolis. This corroborates the inference drawn by Lolling from an inscription found at Marathon, and published in the *Mittheilungen* for 1878, p. 259 ff. From the fact that a certain Lysanias of *Trikorynthos* is there spoken of as archon for the Tetrapolis, Lolling concludes that an organization of these four demes was kept up for religious purposes long after the merging of all old independent communities into a general state.[27]

This leads us to the question of the date of our inscription. When we came, in our first attempts at reading the stone, to this mention of the archonship of Euboulus, we thought we had a reference to the well known Attic archon and a fixed date, 345–44 B. C. We were quite as much surprised as gratified at this, for the other *indicia* seemed to point to an earlier date. It was only by supposing language to be more conservative in a rural district than at Athens that we could reconcile these with so late a date. It was not so much the particular forms of the letters that led us to the impression that the stone belonged to the first half of the fourth century as the general appearance and the orthography. Λ and Σ, with their outside bars oblique rather than perpendicular and horizontal, are less significant than the small o and the Ν with its bottom angle not coming quite down to the lower level of the line. These all, however, and the absence of ornamentation, point to an early date, to which the absence of *stoichedon* writing is no objection.

But more specific is the testimony of the orthography. The genitives in the second declension generally end in ο, although we have Μειδύλου in line 49 and]μενου in line 25.[28] We have also χῶς for χοῦς in 45 and 50. In 52]ολει is probably for Βουλεῖ or Εὐβουλεῖ. Κοροτρόφος is used six times, while the form

[27] He also adduces *CIA.* II, 602, 603 as evidence of a similar organization for the Mesogaea.

[28] ἐνιαυτοῦ, in line 14, looks like the stonecutter's error for ἐνιαυτόν, as ἕκαστον precedes. –νου in 22 is not quite sure; but a genitive here would match an apparent gen. pl. –ων in 28.

Κουροτρόφος is used only twice. This indicates a date before rather than after 360 B. C.[29] The ου in κύουσα, as well as the inconsistency in Κοροτρόφος, might modify the certainty of this judgment somewhat.

The genuine diphthong ου appears also as ο in βῶς, which is used five times, while βοῦς appears only four times. This phenomenon is noted as occurring in many cases during 440–357 B. C.[30]

The following is a list of objects for which money is expended, and the various sums:

αἴξ. ΔΗΗ
βῶς. } ΓΔΔΔΔ
βοῦς. }
βοῦς κύουσα. ΓΔΔΔΔ
κριός. ΔΗΗ
οἶς. ΔΗΗ and ΔΗ
οἶς κύουσα. ΔΓΙ and ΔΓΙΙ
τράγος παμμέλας. ΔΓ
ὗς κύουσα. ΔΔ
χοῖρος. ΗΗΗ
θήλεα ? ΔΗ
ἀλφίτων ἑκτεύς. IIII
οἶνο χῶς. No charge.
τράπεζα. Η
ἱερώσυνα. Η to ΓΗΗIC
φρέατος. ΓΗ
Δαφνηφόροις. ΓΗΗ
τὰ ὡραῖα. No charge.
σπυλια. ΔΔΔΔ

The offerings are for the most part the usual sacrificial animals, the most common being the sheep, which occurs thirty-one times; and in one case (line 36) three sheep are offered at once. Besides this, the ram is mentioned six times, and once, in line 27, is followed by θήλεα[31] instead of the ordinary word οἶς. This makes of sheep, male and female, thirty-eight examples.

[29] MEISTERHANS, *Gram. Att. Inschr.*, p. 21, § 11 (c.), 20.

[30] *Ibid.*, p. 49, § 20, 2.

[31] For the form with ε instead of ει, see MEISTERHANS, *Gram. Att. Inschr.*, p. 31, § 15, 11. The reading is not quite certain. There is hardly room, however, for ει.

The next most frequent offering is the pig, mentioned nine times, once, in line 44, three in a single offering. A sow with young is mentioned three times. Next in order of frequency come kine. In most cases we cannot tell whether cows or oxen are meant. Kine are mentioned nine times, including one instance, line 9, of a cow with calf. Next comes the goat, with six cases, and in line 18 an all-black he-goat. The divinity here proposed in the restoration, Ge, is more or less chthonic, and so corresponds well to the black victim. Of more unusual offerings we have *τὰ ὡραῖα*, the fruits of the season, with no price given, as if it were a trifle, perhaps, like the *χοῦς* of wine, for which also no price is given. An offering must indeed be of very small value to have the price omitted on this score, when the peck of barley at four obols was recorded. Comparable with *τὰ ὡραῖα* is the phrase in Dittenberger, *Sylloge*, No. 377, line 15: *ἄλλα ἀπάργματα ὧν αἱ ὧραι φέρουσιν*. *Cf.* also, *CIA.* II, 1055, line 8, *ἐκ τῶν ὡραίων*, and 1056.

A table is mentioned several times, but not in connection with any greater divinity, unless *Κουροτρόφος* be such, but only with heroes and the *Tritopatres*. In one case, line 53, it is all that the *Tritopatres* get. This sacrificial table is often mentioned in inscriptions.[32]

In *CIA.* II, 836, frags. a and b, line 23, among gifts to Asclepius, mention is made of *τὴν ἀνάθεσιν καὶ τὴν ποίησιν τῆς τραπέζης*. But that so many tables are mentioned in our inscription is a little surprising.

The peck of barley, which is mentioned twice, is doubtless the barley thrown upon the victims from the time of Homer down.

Ἱερώσυνα is used twenty times, always after the mention of the offering, but by no means after *every* sacrifice. The price attached to it varies from one drachma, lines 46, 50, up to seven drachmas one obol and a half, line 22. The word is generally understood to designate the priests' perquisites.[33] It is worth noting that the

[32] *Jour. of Hell. Stud.*, IX, p. 334, lines 9 and 10; *CIA.* I, 4, lines 19 and 20; II, 631, several times.

[33] BOECKH-FRAENKEL, *Staatshaushaltung*, II, p. 108. It is one feature of the inscription which makes it look more like an account than like a calendar, that these perquisites should be priced so exactly.

amount bears no relation to the size of the offering. The two highest prices, in lines 21 and 22, are paid when only a sheep is sacrificed. In line 46, with the same sacrifice, go ἱερώσυνα of only one drachma. To be sure the largest offering (in line 36) to Athene Hellotis, of an ox, three sheep and a pig, carries with it large ἱερώσυνα of at least six drachmas. More may follow, but the stone is here worn away.

The inscription mentions no large sacrifices like hecatombs, and in spite of the frequent mention of ἱερώσυνα, there is no mention of a priest. The only person spoken of as sacrificing is the demarch of the Marathonians.

The syntax and signification of φρέατος, line 52, to which a price of six drachmas is attached, is not clear. Whether it refers to a sacrificial pit or water privileges I must leave doubtful. It is the only case of a priced object coming after ἱερώσυνα. The greatest puzzle of all, however, is the word σπυλια, or possibly σπυδια, line 10. Whether it be a neut. pl. or fem. sing. is doubtful. If the latter, it must be an expensive object, for it costs forty drachmas.

There is no plan in the distribution of the gender of the victims in this calendar. Zeus (ὕπατος and ἀνθαλεύς), Iolaüs, Hero Pheraeus, Hero by the Hellotion and Hyttenius all receive a sheep,[34] while Achaea, Cora and Ge have rams. A goat, in lines 34 and 50, and a sow with pigs, in 43, apparently go to some masculine divinity. Thus even the cautious statement made in Müller, *Handbuch*, v. 3, pp. 103–104, that at least Zeus and the heroes always received male offerings, is not here borne out.

The sacrifice of animals with young is quite a feature of the list. We have ὗς κύουσα three times, οἷς κύουσα twice, and once βοῦς κύουσα. The latter is assessed at the same price as βοῦς. An ὗς κύουσα is naturally priced higher than a pig. The latter is always three drachmas, while the former is twenty drachmas every time that its price can be made out. This might be due simply to the larger size of the sow. But in οἷς κύουσα we have a clear case of a high price on account of this condition of the animal—sixteen and seventeen drachmas against eleven and

[34] οἷς is not here masc., as in Cos Calendar, *Jour. of Hell. Stud.*, II, p. 335, line 61, ὃς τέλεος. κριός is used in our inscription for the male.

twelve for an ordinary sheep. The sacrifice of animals with young is not, however, peculiar to our calendar. It is mentioned in both the Cos[35] and the Myconus[36] calendars.

But we have already approached the subject of prices, which certainly claims attention in connection with this inscription. Perhaps the *hekteus* of barley is the best point to begin with, since bread is the staff of life. This costs four obols, about twelve cents, for a peck. In *CIA.* II, 631, a half *hekteus* of wheat costs three obols, and in *Inscr. Brit. Mus.*, I, 73, half that quantity, or two *choinikes*, costs the same. Our barley is then quite cheap, although a given quantity of wheat ought, of course, to be worth more than the same quantity of barley.

A pig for three drachmas, or about fifty cents, seems cheap. But this is the same price as that mentioned in Ar., *Peace*, 374, during the Peloponnesian War, when prices might naturally be higher than usual. On the other hand, at Delos, at about the beginning of the second century B. C., a pig is put down at from four drachmas to four drachmas and five obols.[37] But at Delos, the supply being limited, the price would for that reason alone run much higher than in a farming district on the mainland.

It is laid down as a general rule by Boeckh that, with all the variation in price, the ratio of price in sheep and oxen was as one to five; a sheep in Athens, in its blooming period, varying from ten to twenty drachmas, and an ox from fifty to a hundred. Our list gives some interesting information on this point. The prevailing price of a sheep is twelve drachmas, although in at least nine cases it is eleven drachmas.[38] We have already noticed the especial case of the οἷς κύουσα. Rams and goats are always twelve drachmas, while the all-black ram runs up to fifteen drachmas.[39] The ratio of prices given by Boeckh does not hold here.

[35] *J. H. S.*, IX, p. 328, line 2, ὃϊς κύευσα; p. 335, lines 57 and 62, ὃϊς κύευσα.

[36] DITT. *Syll.*, No. 373, line 13, ὗς ἐγκύμων. *Cf.* also No. 388, line 69, σὺν ἐπίτοκα.

[37] *Bull. Cor. Hell.*, VI, p. 22, line 180 ff. BOECKH–FRÄNKEL, *Staatshaushaltung*, I, p. 94. The judgment is based on Plut. *Solon*, 23.

[38] The Heroine never gets a sheep of the higher price, although the Heroes do.

[39] As a comparison of ancient prices with modern is always interesting, I may here record that a peasant brought a goat of average size to the excavations, butchered it, and retailed it to our workmen, getting for the whole 19.50 drachmas. This, at the present depreciated rate of paper money, would make about eleven silver drachmas, which is about the same as eleven ancient drachmas.

The price of a cow or ox is too high, ninety drachmas; except in one case, line 8, where it seems to be a hundred; but the reading is doubtful, because the stone looks as if it had been subjected here to erasure or change. But, after all, the kine are not exorbitantly dear, as will appear by a comparison with some other prices.

CIA. I, 188 (410 B. C.), speaks of a hecatomb in the second prytany as costing 5114 drachmas, which, if the hecatomb consisted of a hundred cows, as is assumed by Boeckh [40] and Rhangabé,[41] makes about fifty-one drachmas a head. In *CIA.* II, 163 (406 B. C.), the inscription discussed by Rhangabé (*l. c.*), the price is even less, for the hecatomb costs 41 minæ, and as there is some money left over, the price would be even less than 41 drachmas.

In the Sandwich marble, *CIA.* II, 814a, line 35, the price is not dependent on any such interpretation of the word hecatomb, and is given at 8414 drachmas for 109 oxen, or about 77 drachmas a head. As this is about contemporary with our inscription, *i. e.*, about 375 B. C., it is the best one for comparison, except that as it concerns Delos it might be regarded as giving figures above the usual price. But we see that it gives figures lower than ours. It may also be regarded as harmonizing fairly well with the earlier and lower figures from Athens, on the consideration that these are the figures for oxen, while Athene's hecatomb would naturally consist of cows.[42] In the Cos Calendar,[43] too, it is specified that the heifer for Hera must not be of less value than 50 drachmas.

Thus far our kine would seem to be high-priced, if they are cows, and even if they are oxen. But there are records of still higher prices. In the inscription in *Bull. Corr. Hell.*, VI, p. 26, line 219 (at Delos, 180 B. C.), an ox costs 100 drachmas. In *CIG.* 1688, a prize ox at Delphi costs 300 drachmas. In *Eph. Arch.*, 1883, plate 11, line 77 (at Eleusis, about 330 B. C.), an ox is put down at 400 drachmas. In *CIA.* II, 545, line 32, an ox, as an offering to a hero, costs 100 Aeginetan Staters, which Boeckh reckons at 300 Attic drachmas.[44] Though some of these cows

[40] *CIG.* I, 147.
[41] *Antiq. Hell.*, II, p. 441.
[42] Müller, *Handbuch*, V, 3, p. 104.
[43] *Jour. of Hell. Stud.*, IX, p. 328, line 5.
[44] *Staatshaushaltung*, I, p. 94.

may be accounted for on the ground of stringency arising from the times or the locality, they make our newly-found figures for kine, if rather high, at least not exorbitant.[45]

Other points of interest will occur to one and another reader, but with the remarks already made, and with thanks to T. W. Heermance, a member of the School, who has worked out with me from beginning to end the somewhat difficult reading of the stone, and to Dr. Wilhelm for important suggestions, I leave the inscription to those interested in such matters for further restoration and comment.

RUFUS B. RICHARDSON.

American School at Athens,
March, 1895.

[45] It is possible that all our cases are either of oxen, or cows with calf, but the delivery of proof to that effect is impossible.

NECROLOGY.

AUGUSTUS CHAPMAN MERRIAM. ✠

Early in July 1894, Augustus Chapman Merriam, Professor of Greek Archæology and Epigraphy in Columbia College, sailed from this country with the intention of spending his Sabbatical year abroad in study and research in connection with his favorite topics of Greek art and archæology. The summer, autumn and early winter were passed in England and upon the Continent, and it was not until December 25th that he reached Athens. During a visit to the Acropolis, on the following day, he contracted a severe cold, which clung to him most persistently; but, despite this fact, at the first public meeting of the American School, on Friday, January 11th, he read a paper on Dr. Halbherr's recent explorations in Crete. The succeeding Tuesday, upon his return from a second visit to the Acropolis, he was stricken down with pneumonia; and four days later, on January 19th, he passed away.

Dr. Merriam was born at Locust Grove, Lewis County, New York, in 1843, and received his final preparation for college at the Columbia Grammar School. In 1862 he entered Columbia College, and four years later was graduated at the head of his class. He went immediately to the West, but the following year he returned to take the position of instructor at the Columbia Grammar School. In 1868 he was appointed tutor of Greek and Latin at Columbia College, an office which he held until 1876, when he was relieved of all Latin work and was enabled to devote himself entirely to Greek. In 1879 Hamilton College conferred upon him the honorary degree of Doctor of Philosophy, and in 1880 he was promoted to the position of adjunct professor of the Greek language and literature in his Alma Mater. About this time he began to turn his attention more particularly to Greek archæology and epigraphy, and commenced those studies which, before his death, had gained for him the distinction of being the foremost authority on these subjects in America. In 1887-1888 he was director of the American School of Classical Studies at Athens, and his administration was signalized by successful excavations at Sicyon and at Dionyso, those at the latter place being of especial importance inas-

much as they settled conclusively the much disputed question of the site of the deme, Icaria, the birthplace of Thespis. In 1888, upon the death of President Barnard, Professor Henry Drisler was made acting president of the college, and Dr. Merriam, accordingly, became virtually the head of the Greek department. Two years later, in 1890, although he still continued his work in Greek language and literature, he was appointed to the newly created chair of Greek archæology and epigraphy, a position which he held until the time of his death. He was president of the American Philological Association from 1886 to 1887, and of the New York Society of the Archæological Institute of America from 1891 to 1894. He was for a number of years a member of the Committee of the School of Classical Studies at Athens, and from 1888 to 1894 acted as chairman of the Committee on Publication of that body.

Among his more important publications, beside his editions of the Phæacian Episode of the Odyssey and of the sixth and seventh books of Herodotus, both excellent text-books and both noticeable for the scholarly thoroughness of treatment and the independence of judgment which were so characteristic of the man, may be mentioned "The Greek and Latin Inscriptions on the Obelisk Crab in New York," "Aesculapius as revealed in Inscriptions," "Telegraphing among the Ancients," and "The Law Code of Gortyna." The latter, which was published shortly after the discovery of Halbherr and Fabricius, is an exhaustive treatise upon this famous document and ranks deservedly among the best commentaries that have been written concerning it. To these should be added his three recently published essays, "A Bronze of Polyclitan Affinities in the Metropolitan Museum," "Geryon in Cyprus," and "Hercules, Hydra, and Crab," which all bear witness to his artistic sense and to his extensive acquaintance with Greek art.

As a teacher Dr. Merriam at once commanded the respect of his scholars by his courteous bearing, his simple and unaffected dignity, his absolute impartiality, and his ripe and accurate scholarship. But, more than this, he rarely failed to arouse and stimulate their interest, for to him the classics never served as a mere basis for syntactical drill. Not that any essential point of syntax was ever neglected, but his pupils were made to comprehend that accuracy in this field was but a necessary stepping-stone to higher and to better things. His thoughtful criticisms kept vividly before his scholars the eloquence and literary beauty of the authors under discussion, and his extensive knowledge of art and of epigraphy was constantly employed to illumine every allusion and to quicken into new life the masterpieces of the ancients. Ever quick to sympathize and slow to censure, he yet did not form friendships easily, but, once he had become your

friend, he never faltered. He followed the subsequent careers of many former pupils with never failing interest, and the hearty good will with which he greeted them as fellow workers in his own field, won for him the love of many who had long respected and admired him for his high ideals and his scholarly abilities.

As a scholar, Dr. Merriam belonged to an almost ideal type, combining as he did the receptivity and progressiveness of the American with the conservatism of the English. No theory was ever rejected by him merely because it was new or its author hitherto unknown, nor was any hypothesis, however dazzling or however eminent the authority from which it emanated, ever accepted without a careful examination of the facts. He was a man of decided opinions, yet without the faintest touch of dogmatism; ever ready to defend his convictions, but never unnecessarily forcing them upon any one. In his love of accuracy and in the patience necessary to its attainment he resembled a German. For him no research was too arduous, no amount of labor too great to be undertaken, if it but gave promise of leading to the establishment of a fact or the elucidation of a principle. He possessed in fine to a remarkable degree that "infinite capacity for taking pains," which, if we may believe Carlyle, is identical with genius, and with this he united the sensibility to all that is beautiful and the delicate grace of expression which are such prominent characteristics of the French mind.

"He was a man, take him for all in all,
I shall not look upon his like again."

CLARENCE H. YOUNG.

Columbia College, May 7th, 1895.

NOTES ON ITALIAN PAINTINGS IN TWO LOAN EXHIBITIONS IN NEW YORK.

I.

A loan collection of Madonnas was held at the Durand-Ruel galleries, New York, on March 7th, 8th and 9th, for the benefit of the charity of the "Little Mothers." It was made up of paintings, reliefs, engravings and embroideries. Among the paintings there were several modern pictures of high quality and a small gallery was filled with minor examples of Old Masters. Among the latter there was nothing of marked importance if we except a strong "Holy Family" of the South German School (No. 34) attribued to Dürer by its owner, Mr. M. Heider. A small Madonna and Child in a Gothic Niche (No. 3) attributed to Memling, belonging to Mrs. Francke H. Bosworth, was also of good quality.

The most important of the Italian pictures was perhaps a "Holy Family" attributed to Raphael (No. 32) loaned by Mr. Heider. The picture is an interesting example of the School of Raphael, but is unfortunately not in its original condition.

Several Byzantine Madonnas of about the 13th century were fairly characteristic but none were of first-rate quality. I may mention No. 2 loaned by Mr. Thomas Shields Clarke, which in execution was below Rico da Candia to whom it was attributed: then, a pleasing example, uncatalogued, loaned by Mr. Stanford White and interesting for its background of white enamel laid on over gold and also two examples loaned by Mr. Otto Heinizke, Nos. 49 and 50, assigned to the 12th and 13th century respectively, of which the former (No. 49), would seem to be of Extra-Italian origin, and the latter to be of a somewhat more recent date. To Mr. Heinizke belongs also a small panel showing a transitional treatment between the Byzantine and a more naturalistic manner not directly connected with Florence or Sienna exhibited under No. 51. The picture, which symbolizes the "Coming of Christ," with, to the right, John the Baptist preaching (to a Byzantine group), and to the left Mary leading the Child, was interesting iconographically and charming withal in feeling. There were several characteristic

"Icons," notably No. 24 in a frame of enamel on silver, belonging to Mrs. Anson P. Atterbury, and another uncatalogued.

Two unimportant Giottesque panels belonging to Mr. Henry Duveen may be mentioned: No. 43, the center of a large triptych of provincial 14th century derivation, and No. 42 a Madonna enthroned with four saints and two angels in which the treatment of the musical instrument was very charming. This latter piece was also the central panel of a triptych, and of the latter half of the 14th century, to judge by the execution and feeling, which were distinctly Florentine.

A tabernacle Madonna and Child, attended by an angel, of the School of Fra Filippo Lippi (No. 25), loaned by Mr. Stanford White, a weaker tabernacle piece (No. 29), attributed to Fra Filippo but seemingly of Botticelli's School, loaned by Mrs. William Rutherford Mead, and a good Tiepolo (No. 45), loaned by Mrs. Peter B. Wyckoff also deserved mention, while several pleasing copies or paraphrases of Botticelli (No. 59), of Di Credi (Nos. 54 and 60), of Andrea del Sarto (No. 53), and others, with a few early Renaissance reliefs of good quality, added to the generally artistic and restful ensemble. The exhibition was only on view for three days, and it is to be hoped that the experiment will be repeated on a more ambitious scale.

II.

From March 25th to April 6th, 1895, a Loan Exhibition of Religious Art was held in the rooms adjoining the "Tiffany Chapel" at Nos. 334 to 341 Fourth avenue, New York City, for the benefit of the Chapel at St. Gabriel's, Peekskill, N. Y.

The exhibition, which included specimens of vestments and other stuffs, altar ornaments and plate with work in jewels and the precious metals and a few missals and books, was richly illustrative of modern religious art and not without some things of historical interest. A collection of old pictures which formed part of the exhibition was worthy of some attention and comment especially when we consider the infrequency of such opportunities for viewing the treasures of private galleries.

A Virgin and Child attended by Angels (No. 845), the property of Mr. James Renwick, who attributes it to Fra Filippo Lippi, is by a much rarer master, namely Benvenuto di Giovanni of Siena, of whom it is a characteristic example. Another important though less pleasing picture is a Madonna and Child owned by Mr. S. L. Parrish and correctly ascribed to Innocenzo da Imola, (No. 873.) It is hard and stiff, bricky in the flesh coloring and unpleasantly sleek with varnish; but is undoubtedly authentic and characteristic. No. 871 and No. 877

(A Madonna and Child with two Saints recalling Boccacino) from the same collection are interesting, though not important examples of Bellinesque or kindred influence. A school piece of the late Florentine Quattrocento and seemingly much repainted (No. 874) and a Madonna and Child attributed to Baroccio (No. 876) belong to the same gentleman.

Two Madonnas, Nos. 839 and 846, would seem to have been confused in the cataloguing, for the "Ridolfo Shirlandajo" (No. 846) seems to be a copy of a Francia, and the "Francia" (No. 839) a copy of Ridolfo or some painter of the same school. They belong to Mr. James Renwick, who exhibits a possible Paul Veronese (No. 843), an Adoration of the Shepherds (No. 842) of the School of the Bassani and an Epiphany (No. 842) attributed to Veronese, which is however more in the manner of Schidone. Another Epiphany owned by Mr. Thos. Bullock (No. 777) would seem to be a fine example of Tiepolo. I may mention also a good early copy of Raphael's Madonna of the Chair, the property of the Misses Patterson, and a Bagnacavallo of good quality (No. 819) owned by Mr. J. A. Hotzer.

Among the earlier Italian examples there is not much of interest. A 14th century panel somewhat restored (No. 835) showing mingled Sienese and Florentine influence belonging to Mr. Louis C. Tiffany may be noticed. There were also several unimportant Byzantine panels and a number of "Icons." Nos. 852 and 853 were noticed under Nos. 49 and 51 respectively, in the collection of Madonnas at the Durand-Ruel galleries: also No. 773 under No. 2: also a possible Memling under No. 3, and a Byzantine Madonna uncatalogued belonging to Mr. Stanford White.

I am not competent to estimate the importance of the extra-Italian pictures. A St. Jerome doing Penance (No. 781) attributed to Aldegrever by its owner, Mr. James R. Sutton, is a gem of early German art. A "Sister" by De Vos dated 1620 (No. 775) owned by Mr. Thomas Bullock, and a Zurburan No. 798, owned by Mr. Henry T. Chapman, Jr., are of high quality. Mr. Chapman contributes also a Madonna assigned to an early Italian artist (No. 795) which is perhaps of some historical interest. It is of the early 15th century and of provincial origin with perhaps traces of foreign influence so that I am not able to place it locally. I believe this picture was also exhibited in the collection of Madonnas above referred to. W. R.

ARCHÆOLOGICAL NEWS.

Summary of recent Discoveries and Investigations.

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AFRICA.

EGYPT.

DAHSHUR.—Jewelry discovered by M. de Morgan.—In the last number of the Journal mention was made of the discovery of jewelry and tombs of the XII dynasty at Dahshur. A more extended notice of these discoveries was published by M. de Morgan in the *Débats* for March 14, 1895, and has been republished in the *Rev. Arch.* for March–April, 1895. After having uncovered the remains of a pyramid indicated by Lepsius, named the White Pyramid, M. de Morgan made a series of trenches on the north side of this excavation and soon reached the top of some *mastabas*. The whole of these tombs exhibited admirable frescoes of fine quality. They are the most ancient frescoes known. In one of these *mastabas* was found a stele bearing the cartouche of a high priest of Heliopolis, the oldest son of Snefrou. The date of these monuments is therefore certain. They belong to the beginning of the fourth dynasty, or according to some authorities, to the end of the third. This discovery, of extreme importance from an archæological point of view, was followed almost immediately by another discovery. In the beginning of February, about 100 m. west of the White Pyramid, two undisturbed tombs were brought to light. They were oriented from north to south, and constructed of enormous blocks of Tourah limestone. The first tomb contained a sarcophagus which, according to the painted inscriptions, enclosed the mummy of Ita. She was still adorned with necklaces and bracelets; near her was a magnificent poniard with a

bronze blade and handle of gold encrusted with cornelian, Egyptian emeralds and lapis lazuli. Funerary objects of interesting character were also placed in the *serdab* adjoining this sarcophagus. The body was covered also with beads of pearl, gold, paste, cornelian, lapis lazuli and Egyptian emerald, forming a rich harmonious design which can be restored from the fragments found in the place. The second tomb contains a sarcophagus, the inscriptions of which give the name of the Princess Khnoumit. Here the treasures assume the proportion of an unique discovery. On and about the mummy M. de Morgan found a superb necklace fastened to the shoulders by two heads of hawks made of gold encrusted with cornelian and lapis lazuli, a network of golden beads, other ornaments made of beads of cornelian, Egyptian emerald and lapis lazuli, bracelets with fastenings of gold encrusted with marvellous art. This was not all, for in passing through the *serdab* by an opening hardly sufficient to allow a man to enter, there were found two remarkable crowns; one in solid gold encrusted with flowers, with a socket to support a fan-like spray of various flowers composed of jewels with gold stems and foliage; the other composed of a lace-work of encrusted gold in the form of a wreath of forget-me-nots of precious stones and with beads of lapis lazuli. It is divided into six sections by means of the *crux ansata* or Maltese cross. The number of objects of this remarkable discovery amount to 5,760, without counting the beads of precious stones. The amount of gold represents a weight of 1,792 grms. The Princesses Ita and Khnoumit were contemporaries of Amenemhat II, of the XII dynasty. These treasures are now on exhibition at the Museum at Gizeh.

DEIR-EL-BAHARI.—THE LATEST EXCAVATIONS.—M. Naville reports on Feb. 22 from Deir-el-Bahari: "The clearing of the Deir-el-Bahari is drawing towards its end. Not only is the middle platform completely cleared and levelled, but the retaining wall on the southern side is showing its enormous hawks and traces of the vultures and asps which have been erased by the enemies of the worship of Amon. Parallel to the retaining wall runs an enclosure wall which did not reach the height of the platform, but which formed with it a passage ending in a staircase, now entirely ruined. It seems to have been the only way to reach the Hathor shrine.

"Among the most interesting discoveries made lately are those alluded to in Mr. Hogarth's letter (*Academy*, Feb. 9) of fragments of the famous Punt wall, found scattered here and there in various parts of the temple. Small as the fragments often are, they give us important information as to the nature of the land of Punt. Its African character comes out more and more clearly. Although the name of Punt may have applied also to the coast of South Arabia, it is certain

that the Egyptian boats sent by the Queen landed in Africa. In the newly-discovered fragments we find two kinds of monkeys climbing up the palm-trees: the dog-headed baboon, the sacred animal of Thoth; and the round-headed monkey. Then we see bulls with long and twisted horns, like the animals which, as I have been told, were brought to Egypt some years ago from the Abyssinian coast. Two panthers are fighting together; a giraffe is showing his head, which reaches to the top of a tree, and a hippopotamus is also sculptured as one of the animals of the country.

"A small fragment speaks of 'cutting ebony in great quantity.' And on another we see the axes of the Egyptians felling large branches on one of the dark-stemmed trees which had not hitherto been identified, but which are now proved to be ebony. A small chip shows that the people had two different kinds of houses, one of which was made of wickerwork. It is doubtful whether we shall find much more; unfortunately, what we have is quite insufficient for allowing us to reconstruct the invaluable Punt sculptures, which have been most wantonly destroyed in ancient and modern times.

"On Feb. 1 we at last came upon an untouched mummy-pit in clearing the vestibule of the Hathor shrine. In a place where the slabs of the pavement had been broken we . . . discovered . . . a pit roughly hewn in the rock. When we came to a depth of about 12 feet we found the bricks and the stones which closed the entrance to the side chamber. I removed them with my own hands, got into the very narrow opening, and found myself in a small rock-hewn chamber. It was nearly filled with three large wooden coffins placed near each other, of rectangular form, with arched lids, and a post at each of the four corners. On the two nearest the entrance were five wooden hawks, one on each post and one about the middle of the body. Every coffin had at the feet a wooden jackal, with a long tail hanging along the box. Wreaths of flowers were laid on them, and at head and feet stood a box containing a great number of small porcelain *ushabtis*.

"The opening of the chamber being very small, it is evident that these large coffins were taken into the tomb in pieces, and put together afterwards. We undid the one next to the door, and found inside it a second coffin in the form of a mummy, with head and ornaments well painted, and a line of hieroglyphs well down to the feet. We did the same with the two others, and found that they also contained a second coffin, which we hauled up through the opening of the tomb. When we had stored them in our house, we opened the second coffins, and we found in each case a third inside, brilliantly painted with representations of gods and scenes from the Book of the

Dead. In this third box was the mummy, very well wrapped in pink cloth, with a net of beads all over her body, a scarab with outspread wings, also made of beads, and the four funereal genii. We unrolled one of the mummies, and then found it carefully wrapped in good clothes, which might be used at the present day as napkins or even handkerchiefs. Over the body was a very hard crust of bitumen: we had to use a chisel to break it. There were no amulets or ornaments of any kind except the beads.

These three mummies, which required nine coffins for their burial, are those of a priest of Menthu, Thotaufankh, his mother and his aunt. They evidently belong to the Saïtic epoch, and are among the good specimens of that period. I consider that we were very fortunate in finding an unrifled tomb. It is clear that, after the XXII dynasty, when the temple was no longer used as a place of worship, it became a vast cemetery."—ED. NAVILLE, in *Academy*, March 16, 1895.

EUROPE.

GREECE.

THE PAINTINGS BY PANAINOS OF THE THRONE ON THE OLYMPIAN ZEUS.—In the elaborate description which Pausanias gives of the throne of the Olympian Zeus, few parts have given rise to so much discussion and so much difference of opinion as the paintings by Panainos, the brother of Pheidias. It has been disputed both where they were placed and how they were arranged. The most obvious inference from the words of Pausanias is that the paintings were arranged around the two sides and the back of the throne; the front, which was in great part hidden by the legs and draperies of Zeus, being left plain blue. This view was upheld by Brunn, Petersen, Overbeck (up to the third edition) and Collignon. The subjects enumerated by Pausanias appeared to be nine in number, and were accordingly arranged in three groups of three each. In opposition to this view Mr. A. S. Murray proposed in 1882 a view that these paintings were not on the throne of Zeus, but on the barriers which enclose the space in front of it and, as traces of these barriers have actually been discovered, this view has been followed in the official publication of the Olympian excavations and accepted by Overbeck in the new edition of his *Geschichte der Griechischen Plastik*. Mr. E. A. Gardner now raises several objections to Mr. Murray's scheme, and proposes a new solution, arranging the paintings upon the throne itself in twelve panels, four of which would have been placed upon each of the two sides and back of the throne. This view he justifies by means of the description of Pausanias and by a consideration of the construc-

tion of the throne.—E. A. GARDNER, in *Jour. Hell. Stud.*, Vol. XIV., part 2, 1894.

LYKOURGOS AND NIKE.—The Louvre possesses a panathenaic amphora dating from the Archonship of Theophrastus, 313 B. C. This vase contains as usual the figure of Athena between two columns, but upon one of the columns is represented the image of a god or man holding a figure of Nike. This figure is probably that of an orator, since it resembles statues of Demosthenes and Aischines. Twelve years before this amphora was made an orator like Lykourgos completed and decorated the Panathenaic stadion. There is nothing strange, then, that this figure should be placed upon the column on the amphora. This cannot be a copy of his bronze statue in the Agora, which was not set in place until 307 B. C., but it may be a souvenir of the wooden statue of him made by the sons of Praxiteles, Kephisodotos and Timarchos. It is probable, also, that if the large figure represents Lykourgos the little Nike perpetuates the memory of the statues of Nike in gold which Lykourgos dedicated to Athena. The little Nike is placed upon a strange pedestal held in the hand of the larger figure. The painting here is somewhat indistinct, but we may nevertheless conjecture that it represents the prow of a vessel, since we know that images of Nike upon the prow of a vessel are found upon the painted columns of a Panathenaic amphora dating from the Archonship of Niketes. Upon another Panathenaic amphora of the same date Nike is represented flying above the prow of a vessel. This is certainly a more artistic motive, and suggests an interesting problem. Was not the Nike of Samothrace, and similar statues, inspired by some painting representing Nike flying above the prow of a vessel? The sculptor would have been obliged to place Nike upon the vessel itself, although for the painter there was no such necessity. It is probable that this motive appeared first in that branch of art which was the most capable of giving it expression.—CECIL TORR, in *Rev. Arch.*, March–April, 1895, p. 160.

A GREEK VASE IN THE COLLECTION OF MR. CECIL TORR.—In the *Rev. Arch.*, March–April, 1895, M. Salomon Reinach describes an Athenian lekythos purchased by Mr. Cecil Torr at the sale of the collection of M. Joly de Bammeville, in Paris, June 12, 1893. On it is figured a woman bearing a spear and a shield; overhead is inscribed ΖΕΦΥΡΙΑ ΚΑΛΕ; the name of *Ζεφυρία* is new. The absence of all characteristic attributes does not allow of our considering this woman to be an Amazon; it is more probable that we have here represented a young girl dancing the pyrrhic dance as described by Xenophon in the Anabasis VI, I, 12–13. The *subligaculum* worn by this figure re-

appears in numerous paintings of dancers in the exercise called Κυβίστησις described by Xenophon in the *Symposium*.

ARGOS.—AMERICAN EXCAVATIONS AT THE HERAION.—Prof. T. D. Seymour, chairman of the American School at Athens, has received a report from Dr. Waldstein regarding this season's excavations at the Heraion of Argos. Dr. Waldstein says that at the end of the present season the whole of the ancient peribolos will have been excavated, including the buildings adjoining and the ancient temples. During this season an immense quantity of dirt has been removed, and the work has been pressed with uncommon vigor and success. He quotes the Greek Director of Antiquities as characterising the work at Argos as "the model excavation of Greece." Dr. Waldstein also says that he will take immediate steps for securing for the American School the sole right to excavate in the immediate vicinity of the Heraion for the coming five years.

After referring to the rich discovery of "bee-hive" tombs last year, and predicting the discovery of many more, Dr. Waldstein says, speaking of this season's excavations at the stoa: "As I am now writing the building is quite clear. It is a beautiful stoa . . . with walls of most perfect Greek masonry of which four and even five layers are standing, all sound. Within there are nine Doric pillars. All the pillar bases are *in situ;* three have the lower drums while one has two drums, the remaining ones, together with the capital, in good preservation, having fallen. There are well-worked pilasters, one to each alternate pillar. The stoa is about forty-five metres long by about thirteen metres wide. It faces toward Argos, and a continuous flight of steps leads up to it. The temple above it must have fallen in before this stoa was destroyed, as, especially in the western half, we found large drums of the columns from the temple, which had crashed through the roof. The flooring was there, in parts, littered with fragments of marble from roof tiles and metopes. Among them were several pieces of sculptured metopes, fragments of arms, legs, torsos and bodies, all from the high relief of the metopes, and two well-preserved heads (one quite perfect), with portions of three others. This stoa is, perhaps, the best preserved of all the buildings we have found, and is certainly one of the most imposing I know in Greece."

On the west of the stoa Dr. Waldstein found traces of a huge staircase covering the whole slope and leading up to the great platform of the temple, forming a magnificent approach to the sanctuary. He adds in this connection that the facings and massings of certain parts of the structure in different directions correspond to the change from the Mycenæan to the Argive supremacy.

In further excavations Dr. Waldstein notes the discovery of walls of the Mycenæan period, together with graves, vases and small objects. Outside of the boundaries of the temple he has found buildings of the Roman period, including an extensive and complete system of Roman baths.

Of the heads excavated Dr. Waldstein says that they correspond with those already found. They are worked in a vigorous manner, and are still of such careful execution that he "hardly believes even those of the Parthenon can rival them in this respect." One head of a youth with a helmet is in perfect preservation, and even the tip of the nose remains. He regards the sculptures as among the most important specimens of the art of the fifth century B. C. Altogether about seventy-six baskets full of vases, terracottas, bronzes, etc., have been collected, and a number of Egyptian objects, including scarabs, brought out. There are several inscriptions, some of the Roman period; but in this respect the most important find, perhaps, of the whole excavation is a plaque, about eight inches square, with an inscription in the earliest Argive characters.

Dr. Waldstein closes his letter with an urgent appeal for the thorough and graphic publication of the results of the labor of four seasons at Argos.—*N. Y. Evening Post*, June 21, 1895.

ATHENS.—VASES FROM THE AKROPOLIS.—The fragments of early Greek vases discovered on the Akropolis of Athens have now been partially arranged. They represent a great variety of pottery from the earliest period in an unbroken series down to the year 480 B. C. Of the Mycenæan period there is an astonishing quantity indicating that this type of culture lingered a long while in Attica. The series of fragments of red-figured vases is rich, and has many rare subjects. The fragments of black-figured vases are not yet arranged. This material is very abundant, and proves that the finest and the poorest of wares were made at the same time in Athens. This large collection is at present in a corridor-like room of the Central Museum, piled up upon tables and inaccessible to students. It is much to be desired that they should be placed upon exhibition, catalogued and published with illustrations.—CHR. BELGER, in *Berl. Phil. Woch.*, Jan. 5, 1895.

A GREEK ARCHÆOLOGICAL INSTITUTE.—The Archæological Society of Athens has decided to create an Institute for the special study of antiquity. This institute will have charge (1) of the publication of the *Archæological Journal* (Ἐφημερὶς Ἀρχαιολογική) and other publications of the society; (2) of communications and lectures having for their object the giving of information regarding the excavations undertaken at the cost of the society; (3) of advising in regard to the purchase of antiquities by the Council of the society and of determin-

ing their price; (4) of selecting archæological works worthy of being financially assisted by the society. Finally, the members of this institute are to start public courses in archæology and history of art.—*Chronique*, 1895, No. XIX.

THE PARTHENON FRIEZE TERRACOTTAS.—A new fragment of a small reproduction of the Parthenon frieze has recently come into the possession of Mr. A. H. Smith. It belongs to the same class as the fragments at Copenhagen, the Louvre and the Museo Kircheriano at Rome, which were published by Dr. Waldstein in his *Essays on the Art of Pheidias*. Archæologists generally had settled down to the belief that these fragments were modern productions, based upon a series of casts made by Choiseuil Gouffier. Professor Furtwaengler, however, has recently reopened the controversy by declaring the Copenhagen fragment to be a genuine reduction of the frieze made in the time of Augustus. It is, however, certain that the series as a whole is not ancient, because the head of Iris is now known to have been wrongly restored, and because some of the slabs are made up of different parts of the original frieze brought together in a way which proves that the original was in a ruinous state when the moulds were made.—A. H. SMITH, in *Jour. Hell. Stud.*, Vol. XIV., part 2, 1894.

DELPHI.—DATE OF THE TEMPLE.—It has been generally believed that the temple was finished in the fifth century, but M. Foucart has proved, at a recent meeting of the Academy of Inscriptions, by means of a passage of Xenophon, hitherto misunderstood, and by an Athenian decree, that even in the fourth century the Greeks were seeking for the necessary funds to finish the temple. This fact once established allows of a better interpretation of some of the recent discoveries. The temple which is mentioned in the accounts contemporary with the Sacred War as undergoing certain works executed by international commission must be, therefore, the temple of Apollo. The remains of the Doric column discovered during the excavations date also from the middle of the fourth century, and there need now be no surprise at the style of the capitals, nor need it be supposed that the building was reconstructed.—*Chronique*, 1895, No. XIX.

ERETRIA.—LATEST AMERICAN EXCAVATIONS.—A letter received by Prof. Seymour, Chairman of the School at Athens, on June 21, from Prof. R. B. Richardson, describes the work at Eretria. Besides almost completing the excavation of the orchestra of the newly-found theatre, Prof. Richardson has laid bare a large building, in one room of which stood the tubs of the "city laundry" found last year. It appears to have been a gymnasium with floors of various kinds of pavements and another row of smaller tubs. In this building were found three heads, one a very fine one of an archaistic bearded Dionysos, almost

the counterpart of one in Athens; another, representing the best art of all, probably of the fourth century, the right side of a woman's head, with one eye and the forehead intact. The finds include: three inscriptions, one of fifty lines, probably an honorary decree of the first century B. C.; two silver coins, one probably of 500 B. C., bearing an archaic head, probably of Zeus or Herakles, and on the reverse a trireme; also stamped tiles, two terracottas, and a fragment of a vase with a name printed upon it. Prof. Richardson also says he has laid bare still another important building with many marble and terracotta trimmings.—*N. Y. Evening Post*, June 24.

ITALY.

Prehistoric and Classic Antiquities.

EUTHYDEMUS I, KING OF BACTRIA.—In the Museo Torlonia there is a head, No. 133, described as an old fisherman, in which we may, however, recognize a king of Bactria. It is at least life-size and of marble similar to that of the dying Gaul in the Capitol. He wears a broad-banded thick hat such as we find represented upon the coins of the kings of Bactria and India. The strongly characteristic features of this head are found reproduced in a tetradrachmon of Euthydemus I. We learn from Polybius that Euthydemus came from Magnesia and he may have returned there after the peace with Antiochus in 208 B. C. At this time a statue may have been erected to him in his native town. This bust was formerly in the possession of Giustinani, who had possessions upon the island of Chios opposite Magnesia.—J. SIX in *Roem. Mitth.* IX. 2, p. 103.

PORTRAIT OF TITUS QUINCTIUS FLAMINIUS.—In the Museum of Berlin there is a Pentelic marble head of more than life-size, which has been illustrated in plates 15-16 of Brunn and Arndt, *Griechische u. Römische Porträts.* According to the Berlin catalogue this is a copy of a Greek head of the fourth century B. C. According to Brunn and Arndt, the head represents a Greek who lived in the Roman times about the end of the second century A. D. If we should compare this head with the best imperial portraits of the time from Lucius Verus to Caracalla, we find that the latter are much more objective in character. On the other hand, the date given in the Berlin catalogue is too early, since portraits of that time were severer and did not possess the softness of expression, nor the highly finished surface of this head. Such carefully ruffled hair is frequently found in busts from the time of Alexander through the entire Hellenistic period; but the short

beard was worn only within narrow limits of time. From the time of Alexander it was customary to shave; only the philosophers did not follow this fashion. They allowed the beard to grow longer than was customary in the fifth and fourth centuries. Occasionally royal portraits followed this custom, but ordinarily, the kings of Pontus, Bithynia and Macedonia from the middle of the third to the middle of the second century B. C. wore a very short beard. The original of this bust, therefore, must have lived about the end of the third and during the first half of the second century B. C. Similar features to those of this bust may be found upon the gold stater, which has upon the obverse a portrait head and on the reverse a Nike crowning the name of T. Qvincti. Examples of this are found in Berlin, Athens and Paris. Friedlaender remarks (*Zeitsch. f. Num.* XII S. 2,) "as this coin resembles exactly the Macedonian royal coins of this period and has the Nike of Alexander the Great, it must have been struck in Macedonia, not in Greece. The crowning of the name indicates that it was struck after the battle of Kynoskephalai in the year 197 and since it is a Macedonian coin, it can be placed only between the date of this battle and the peace with Philip in 196, the time when Flaminius was master in Macedonia. The statue to which the original of the Berlin head belonged, would accordingly have been made in the year 196. We know it is true only of one statue of Flaminius in Rome mentioned by Plutarch, but it is evident, that one to whom such divine honors were paid must have had many statues raised to him. This bust is of Greek workmanship, whereas the majority of Roman portraits were Italic. This is also the first certain instance of an important portrait of a Roman of this period. It may lead to the discovery of other portraits of Romans in busts which have hitherto been supposed to represent only Greeks.—J. SIX, in *Roem. Mitth.* IX, p. 112.

THE PONIATOWSKI COLLECTION OF GEMS.—M. Salomon Reinach has written for the *Chronique* (1895, Nos. 1 and 2) a paper on the character and history of the peculiar collection of engraved gems made by Prince Poniatowski. The Prince had inherited a small collection of about 150 gems among which were such masterpieces as the Io of Dioscorides. Having retired from political life in 1804 and living almost always in Italy he found the means of increasing his collection to such an extent that at his death in 1833 it comprised 2601 gems, nearly 1800 of which were provided with artists' signatures. The collector was very chary of showing his gems and very little was known about them except from a catalogue, of which he had a few copies printed shortly before his death. The collection, it is not known whether wholly or in part, was sold in London in 1839. At this sale

the bulk of the gems, 1140 in number, was purchased by a Colonel Tyrrill and on becoming known to the public and to specialists it became generally suspected that the greater part of the gems were forgeries. This appears to have been the case with all the signed gems.

HERCULANEUM.—THE MISTRESS OF THE VILLA OF HERCULANEUM.—On the 17th of November, 1759, there was found in the villa of Herculaneum a bronze bust which has given rise to the most remarkable and fanciful interpretation. By the publishers of the Herculaneum bronzes it has been named Ptolemaios Apio or Berenike; by others Libya; by Comparetti, Aulus Gabinius or Apollo; by Arndt it has been called a Hellenistic conqueror. The ground for all these interpretations has been the taenia about the head which in our view is certainly modern. The face is well preserved with only modern eyes. The neck also and small portion of the bust are ancient and well preserved. On the other hand, the entire crown of the head together with the taenia and the locks of hair forming a complete wig, are modern. The record given by Paderni of the discovery of this bust substantiates the preceding remark. The acceptance of the antiquity of the entire bust, is based upon the fact that Winckelmann saw it in 1762 and expressed no doubt of the genuineness of the locks of hair. This only shows that the restoration must have taken place before 1762. Underneath the modern locks of hair, we find engraved indications of hair which are not modern; these correspond precisely in style to those which may may be seen upon the foreheads of women in Pompeiian paintings, and is an indication to us that this head is the portrait of some distinguished woman of Herculaneum or of a Roman lady who had her villa there. We are tempted to go further and from the fragment of an inscription upon the herm, near which the head was found, restore the name as Thespis, but we are not acquainted with this as the name of a woman and there seems to be no space for the name of the dedicator.—J. SIX, in *Roem. Mitth.* IX, p. 117.

LYSIMACHOS, KING OF THRACE.—Of the three heroic sized bronze busts of kings from the Villa in Herculaneum, two only were found in the Atrium. The third, found in the garden, has been recognized by Wolters as Seleukos. Of the other two, which as yet have not been recognized, one was called Ptolemy Alexander (*Bronzes of Herculaneum* I, plate 69-70; *Villa Ercolanese*, VOL. IX, 3.) The most recent publisher of this bust, Arndt, remarks that from iconographic as well as chronological grounds this identification is untenable. He himself says of it: "I think on account of the resemblance of the features to those of Alexander the Great, that this is possibly the portrait of his father, Philip of Macedon (382-336), whose portrait we know was made by

Euphranor, Leochares and Chaereas. It is too old to be an Alexander. A close observation shows many other features not possessed by Alexander. These features are, however, to be found on coins representing Lysimachos. Of the statues of this king we know specifically of one which was placed on front of the Odeion of Perikles (Paus. I, 9, 4.) Wachsmuth was probably right in saying that this statue was made in the year 284/3, when the king was 67 to 77 years old.—J. SIX, in *Roem. Mitth.* IX, 2, p. 103.

PALERMO.—RELIEF REPRESENTING A SACRIFICE BY VESTAL VIRGINS.—In the National Museum at Palermo, there is a relief which came from the collection of Prince Raffadeli, of the province of Girgenti. The relief appears once to have decorated a large altar. On it are represented a seated woman, four standing women and a priest. In front of the women are represented three small altars, on one of which is an ox, on another a ram and on a third fruit. The whole scene is represented as taking place in front of a temple. There are two other reliefs which may be brought into comparison with this; one is in the Museum of Sorrento and has been published by Heydemann (*Roem. Mitth.*, 1888–9, PL. X.); the other in the villa Albani was published by Zoëga. *Bassirilievi* Taf. 22. These three monuments evidently portray the same subject and must be interpreted alike. The costume of the women is that of the statues of the vestal virgins from the atrium of Vesta. They wear over their heads the *suffibulum*, which according to Festus was worn only by vestal virgins. Upon the relief of Sorrento there is represented also a Palladium which identifies the temple as that of Vesta. The temple upon the two other reliefs may be similarly attributed. The seated figure we may consider as the goddess Vesta herself, not only because of the ideal form of the head, but also because on the Albani relief she carries a sceptre and corresponds in general to the seated figures of Vesta found upon coins. From the character of the workmanship of the relief from Palermo, we may judge that it cannot be later than the first century A. D., and may be as early as the time of Augustus.—ERNEST SAMTER in *Roem. Mitth.* IX, p. 125.

PERUGIA.—BRONZES FROM PERUGIA.—In April, 1812, an important find of bronzes was made at Castello S. Mariano, 6 kilom. southwest of Perugia. Some of these bronzes remained in the museum of the University of Perugia; others found their way to the British Museum and to the Glyptothek and the Antiquarium at Munich. In the early portion of the century these bronzes were published by Vermiglioli, Inghirami and Micali, but their publications did not give sufficiently good representations of the bronzes nor a proper estimate of their historical importance. They were generally classed as of Etruscan origin, whereas the greater portion are early Greek or more definitely Ionian.

workmanship, while others are local or Etruscan; but all of them, whether original or imitations, belong to the sixth century B. C. Amongst these objects the most important is a highly decorated bronze chariot, the fragments of which are scattered in the various museums. This was not a war chariot, as was formerly supposed, but designed for pleasure driving. It was finely decorated with figures of gods, gorgons, men and animals. The object next in importance is a war chariot, the fragments of which have all remained in Perugia. Belonging to this chariot is an important relief representing the contest of Herakles and the Amazons against Ares, Kyknos and Aphrodite. Analogous representations upon vases from Chalchis and sarcophagi from Klazomenai, show that both of these chariots were of Ionian workmanship. Besides these important objects, there are here described in detail many fragments of reliefs, which decorate objects of furniture, also a number of moulded figures and reliefs in silver, some of which are plated with gold. Etruscan imitations of early Ionian work are then considered separately, and a classified catalogue of them is given.—E. PETERSEN, in *Roem. Mitth.* IX, 4.

A series of excellent photographic reproductions of the most important of the bronzes is given on plates 14 and 15 of vol. II, No. 2, of the *Antike Denkmäler* of the German Institute, just issued.

POMPEII.—EXCAVATIONS AT BOSCOREALE.—Sig. Vincenzo de Prisco of Boscoreale has made excavations in his property about 1.50 kilom. from Pompeii. Here he has discovered a villa, which is not merely a farm-house, since it contains apartments for baths evidently intended for the use of the proprietor, so long as he lived there. Drawings of this building have been made by the architect Holzinger. The excavations have not yet been completed, but a brief notice of them may now be given. Adjoining the central court is found the *culina*, directions concerning which are found in Varro *de r. r.* I, 13, 2, and Vitr. VI, 9, (6), 1. In the centre of the *culina* stood the oven of square form. The entrance to the *culina* is at the southeast angle according to the directions of Vitruvius, that the *culina* should be placed in the warmest portion of the court. An adjoining room was evidently intended for the preservation of farming implements; then follow two rooms with walls painted in late Pompeian style. Northeast of the *culina* are found the bath rooms, with *apoditerium*, *tepidarium* and *calidarium*. Portions of the furnace still remain with their connecting tubes. Several fragmentary inscriptions were also found. A. MAN, in *Roem. Mitth.* IX, 4, p. 349.

The following letter gives further details:—

"I went lately to the new excavation on Signor de Prisco's property at Boscoreale, which is highly interesting. The elegant bath-room

which forms part of the dwelling now uncovered was dug out some time ago, and probably the objects found in it were taken away. Signor de Prisco is now excavating the rest of what seems to be a large and elegant house, about a mile away from the northern limit of ancient Pompeii as the crow flies. The most interesting things yet found are two cisterns for supplying the bath and washing-basins at the other end of the bathing chamber, with hot and cold water at will, when they could be mixed to the proper temperature. Pipes, taps, &c., are all in their original place. The great square room (at the side of which these cisterns stand) with the hearthplace in the middle was the kitchen (*atrium*), which, in the country as well as in the town, served in the oldest time as the principal living-place of the inhabitants.

"This country house now discovered must not only have been a farm, but also served as a country residence for its owners, as the objects discovered, and the elegance of the mural frescoes, show. This *atrium* in the country villa now discovered was no doubt the largest room, as it always was in a *villa rustica*. It was called the *culina* (kitchen.) On three sides it was surrounded by its unplastered walls; on the fourth with a large broad kind of cupboard, or sideboard of wood, the impression of which could be clearly seen in the ashes and pumice-stone by which the house was buried. On the low hearth in the centre the cinders of the fire last kindled by the inhabitants were found. In one of the walls is a niche for the lares and penates. The bath-rooms consist of an antechamber, on the mosiac floor of which are represented two ducks; the *tepidarium*, with the figure of a large fish in the mosaic floor; and the *calidarium*, the pavement decoration of which represents a swan or crane stretching out one claw towards a wriggling eel. This bath-room is especially interesting as still containing the water cistern, conducting pipes, bronze taps, &c., which are quite missing in Pompeii, because in the latter city the surviving inhabitants took away all the metal objects they could find.

"The bath, lined with marble and standing on a marble step, is of the usual size for one person. At the opposite side of the room is a niche with a roof in form of a shell, where doubtless stood the basin or fountain, for the bronze tubing can be seen in the wall. Behind the bath, and at an angle with it and the kitchen, separated from each by a wall, is the heating-room. A leaden boiler, about two feet in diameter, and more than six feet high, stands above an oven, from which the heat was also led into the bath-rooms in the well-known manner. Not far away is the water cistern, connected with a complete system of pipes. One comes from the yet unexcavated part of the villa, leading the water into the cold-water cistern at the upper part, and capable of being closed by a bronze tap. Then four other pipes

issue from the same cistern near its bottom, close above the ground. One of them, still provided with its tap, turns away from the heating chamber, and either led to a cold bath or served to empty the cistern. The other three pipes lead the water into the heating-room and into the boiler. The largest, which can be closed by its tap, brought the cold water. Curiously enough, it did not empty the water straight into the boiler, but the pipe twists round within the boiler, to let the cold water flow into the bottom of the boiler, without affecting the already heated water at the top. The second pipe, also with a tap, leads into the bath, but before reaching it, it joins a short pipe coming from the boiler. This short pipe has also a tap. When this was closed and the other open, cold water flowed into the bath; reversing the movement, then the warm water flowed into the bath. The third pipe is not visible in all its course, as the part is not yet excavated, but there is no doubt that it supplied the basin in the niche. It has also a tap at its commencement, and in passing the boiler joins a short pipe with a tap, rendering possible, in the same way, the mixing of hot and cold water in the basin. The boiler has a very short pipe close to the bottom, to let out the water, which must have been caught in vessels.—*Athenæum*, Dec. 22, 1894.

ROME.—MUSEUM IN THE BATHS OF DIOCLETIAN.—Several new halls of sculpture have been opened in this museum; besides these two halls have been devoted to antiquities of the Lombard period. One contains objects in use by men and the other contains women's jewelry and other decorative objects.—*Chronique*, No. 11, 1895.

KARYATIDES FROM THE VIA APPIA.—Brunn in *Gesch. d. Griech. Künstler*, I, 542, has gathered together a number of works inscribed with the names of Greek artists in the Roman period, from which list the artist of the Medici Venus has long been excluded, on account of the falsity of the inscription; and the Kleomenes of the altar at Florence has been recently excluded on the same ground; also the relationship of the Vatican Karyatid and those in the Palazzo Giustiniani, to those which Diogenes erected in the Pantheon, has grown more and more improbable. One more statue must be taken from this group; namely, the Maenad in the Villa Albani, which has passed for a work of Kriton and Nikolaos. So far as the inscription is concerned there is no doubt with regard to its genuineness, but the head does not belong to the body which now bears it. The head is that of a Karyatid and the body that of a Maenad. In comparison with the head inscribed, on the back, with the names Kriton and Nikolaos, we may bring the following series of Karyatides: one in the Villa Albani No. 628; one in the Vatican, Braccio Nuovo No. 47; one in the British Museum; another in the Villa Albani No. 725; and one of which, a cast, exists

in the Bagni Bernini. We know from the testimony of Winckelmann, that together with this head at least two other Karyatid statues were found. Brunn has suggested that these statues belonged to a building of Herodes Atticus in the Via Appia, under the name of the Triopian Pagus. This Triopeion is further known by extensive inscriptions now in Paris. The goddesses here worshipped, according to the poem of Marcellus, were Demeter and Kore and the elder and younger Faustina, empresses who were worshipped as goddesses. The goddess who gave her name to the region is Deo-Demeter, whose original abode was upon the Triopian promontory near Knidos. The reason that Herodes selected her would seem to be, that he was initiated into these mysteries by his teacher Theagenes of Knidos. With regard to the cult of this Triopian Demeter, we have information in the sixth hymn of Kallimachos. He pictures a procession in which a kalathos filled with ears of corn was drawn in a wagon as the symbol of the goddess. This kalathos described by Pliny (N. H. XXI, 5) had the same form as that borne on the head of our Karyatides; which seems to make it clear that they were attendants of Demeter. In spite of the abundant representations of Kanephoroi, the use of such figures as free standing columns was not common. Furtwängler refers this entire group to the school of Skopas and Praxiteles, but the Karyatides now in question appear to have been based upon Athenian prototypes of the fifth century.—H. BULLE, *Roem. Mitth.*, IX, p. 134.

A FEMALE HEAD; A COPY OF THE NIKE OF PAIONIOS.—In the possession of Fräulein Hertz in Rome, there is a marble head representing a youthful woman, whose hair is doubly bound by a taenia, the extremities of which fall behind her ears. The way in which this taenia is bound is found only upon the fragmentary head of the Nike of Paionios, and when we come to compare this head with the head of the Nike, it is found to be a copy with very slight variations of the famous Nike or at least of a head from the same school, the same atelier and in all probability from the very same hand. The importance of this head for the history of Greek sculpture of the fifth century and especially in enlarging our conception of the work of Paionios is self-evident. The inscription on the base of the Nike statue, which has been assigned roughly between the years 450–420, may now be placed at the earlier rather than the later date if we judge from the style of this head. Had the statue been made as late as 420, Paionios would undoubtedly have profited in the treatment of transparent drapery from the art of Pheidias. The monument which comes nearest in style to the Nike, is the fine Maenad relief in the Palazzo dei Conservatori, published by Winter in the 50th Winckelmann Program and assigned by him to the middle of the fifth century.—A. AMELUNG, in *Roem. Mitth.*, IX, p. 162.

HERAKLES WITH HYDRA IN THE MUSEUM OF THE CAPITOL.—In the year 1620, when the church of S. Agnese outside of the Porta Pia was being rebuilt, there was found a much injured figure of a youth of strong, muscular form. Both arms and the greater portion of both legs were missing. Out of this torso, the sculptor Algardi made a restoration of a Herakles in contest with the Hydra, and the subsequent discovery of a leg entwined by the body of a Hydra was thought to substantiate the restoration. This composition, however, is out of analogy with classic productions, and other fragments more certainly connected with this statue are made the basis of a new restoration of a Herakles with the stag. The pose of the body is strictly analogous to that of well-known examples of this type.—L. PALLAT, in *Roem. Mitth.*, IX, 4, p. 334.

PRODIGY OF THE LEGIO FULMINATA.—Father Grisar publishes in the *Civilta Cattolica* for 1895, No. I, a note entitled the "Prodigy of the *Legio Fulminata*" and the column of Marcus Aurelius. This legend, so famous in the annals of primitive Christianity, is sculptured on the base of the column of Marcus Aurelius, the bas-reliefs of which represent the campaign undertaken by the Emperor against the Quadi. The prodigy took place in the summer of 174 A. D. The bas-relief naturally represents it as it would be explained by Pagans and especially by the philosophic Emperor. The relief is well preserved and is here reproduced from a photograph with accuracy for the first time. The prodigy as narrated by three independent witnesses was as follows: During the campaign against the Quadi, the Roman troops were in danger of dying of thirst, but prayers having been offered up, a heavy and refreshing rain came down, and this was so manifestly by the intervention of a superior power, that Marcus Aurelius felt it necessary to recognize the fact and to affirm it publicly. According to Apollinaris and to Tertullian, it was the Christian soldiers of the army who by their prayers brought down the rain; and especially, says Apollinaris, was this the case with one of the legions, which was called in consequence ever afterwards the *Legio Fulminata*. This prodigy took place immediately before the battle and was the means of giving victory to the Romans, not only by refreshing them, but by turning hail and lightning and a violent storm against the barbarians. In the relief the rain proceeds from a winged spirit like a Genius, with extended arms, whose beard and figure almost entirely disappear in the falling rain. This figure has none of the characteristics of a god, and therefore, the identification of it as Jupiter Pluvius, so common among archæologists, is an error. The figure is nothing else than the personification of the rain and a sign that it was due to superhuman causes. This bas-relief is, therefore, far from invalidating the testi-

mony of early Christian writers, and is, in fact, a strong proof in their favor. Grisar is opposed to Petersen's opinion that the legend arose in consequence of this very bas-relief, and cites Harnack, who proves conclusively the existence of a letter written by Marcus Aurelius to the senate in which he mentions this prodigy. This official declaration by the Emperor is supported also by Mommsen in a recent paper in *Hermes*, 1895, No. 1. Grisar is opposed both to Harnack and to Mommsen in that he does not regard the imperial letter as the sole source of the legend, but gives independent value to the early Christian testimony to the fact.

RUVO (APULIA.)—VASE REPRESENTING THESEUS IN THE SEA.—In the *Not. d. Scav.* 1893, p. 242, Sig. Jatta has described a vase from Ruvo, as has been already recorded in the news of this JOURNAL, IX, p. 453, to which we refer for details. The principal painting represents the descent of Theseus into the sea, the myth related by Pausanias I, 17, 2, and illustrated by a painting by Mikon. The figures we believe to have been correctly identified by Sig. Jatta as Theseus, Poseidon and Nereus between a Nereid and Amphitrite. The peculiarity of this picture is that Theseus holds in his left hand a box or shell in which to place the ring which Nereus had thrown into the sea. This myth is depicted upon three other vases, as has been already noted. Upon a Krater from Bologna, Theseus is represented as miraculously carried into the deep by Triton. Such a representation is *a priori* probable in the school of Polignotos and likely to have been followed by Mikon. The more schematic mode of representation and the kind of garment worn by Theseus are indications that the vase from Ruvo was made in Magna Graecia, perhaps at Tarentum.—PETERSEN, in *Roem. Mitth.* IX, p. 229.

TARENTUM.—MOSAIC PAVEMENT AND BRONZE LAW TABLETS.—Two discoveries deserving mention have taken place at Taranto, the one relating to art, the other to epigraphy. In digging the foundations of some building the workmen came across the remains of a Roman house of large dimensions, which had been erected on ruins of a still earlier period. In this house were discovered three mosaic pavements, one of which, of considerable size, was adorned with a large mythological scene. It is of rectangular form, 5.40 mètres long and 3 wide. At the sides are decorations in geometrical design, while the centre field contains a figure of Bacchus, 2.10 mètres high. The god is represented nude and beardless, standing erect, with his left hand resting on the thyrsus, and in the right hand a vase, from which he is pouring wine into the open mouth of a panther crouching at his feet. The figures are drawn in simple black outlines, the panther's teeth and some ornaments (as the crown on Bacchus's head and the animal's collar)

being picked out in other colours. It is observed by Signor Viola, director of the excavations at Taranto, that, while mosaics generally represent copies of ancient pictures, this figure in outline evidently reproduces some ancient statue. Indeed, a subject which may be the original of this composition is to be seen in a statue of Bacchus in the National Museum of Naples. The style of the work, and especially the marginal decorations, denote a late period, perhaps the third century of our era.

Later on were discovered on the same site six fragments of bronze tablets, bearing inscribed parts of a Roman municipal law. Signor Viola, on being commissioned by the Government to continue these researches, succeeded in finding a new fragment, which completed the ninth tablet of the law, as was known by the numerical indication it bore on the top.—HALBHERR, in *Athenæum*, March 23, 1895.

TERRACINA.—NOTE ON THE DISCOVERY OF THE TEMPLE OF JUPITER ANXUR.—We promised in a late issue of the JOURNAL a note on what proved to be the most important discovery made in Italy during 1894, that of the temple of Jupiter Anxur at Terracina (JOUR. IX. No. 4, p. 606). The details of the discovery are given in the *Notizie degli Scavi* (1894, pp. 96–111) by Sig. L. Borsari, from which we make the following summary.

The temple of Jupiter Anxur is mentioned by Livy, Virgil and Servius. Livy speaks (xxviii. 11) of lightning having fallen on this temple in the year 548 U. C. and shortly afterwards records the same fact (xl. 45) for the year 575. Virgil (Æn. VII. 799) has a passage which shows that the worship of Jupiter Anxur was not restricted to Terracina, but extended to the neighboring towns, and it also tells us that the temple must have been situated on a hill from which the entire surrounding territory could have been visible. Servius in his comment on this passage reports that it was the infant Jupiter who was worshiped under this title of Anxur. This fact is confirmed by a coin of the gens Vibia which represents a youthful god seated, with the inscription IOVI AXUR. Although a few writers such as Contatori, Smith (in his dictionary) and Vinditti suggested that the temple might be located on the bluff immediately overhanging the town, the general opinion has been that the ancient structures still remaining at that point belong not to the early Roman period, but to the time of the Goths. In fact M. De La Blanchère, and writers on the history of architecture like Mothes, (*Die Baukunst d. Mittelalters in Italien*), regard the great arches on the bluff as the remains of a fortress or prætorium of King Theodoric and as belonging, consequently, to about 500 A. D. The recent excavations prove, however, that these arcades and vaults were part of the substructure of the temple of Jupiter Anxur and belong, as might

have been expected from their good quality, to a very early Roman period. The first discovery was entirely fortuitous; a certain Capponi in search for treasure dug a hole, and at a depth of 2.50 m. found a wall of local stone surmounted by a cornice of excellent style. This was recognized to belong to the base of a temple by a relative of the excavator, Sig. Pio Capponi, who identified it with the temple of Jupiter Anxur. His opinion was confirmed by some of the remains of mosaic pavement found close by. The municipality of Terracina, which owned the site, placed at the disposal of Capponi the necessary funds for the excavation. In a short while the entire plan of the temple was uncovered, oriented from north to south and measuring 33.50 m. by 19.70 m. We reproduce the plan from the *Scavi*, as well as both a transverse and a longitudinal section.

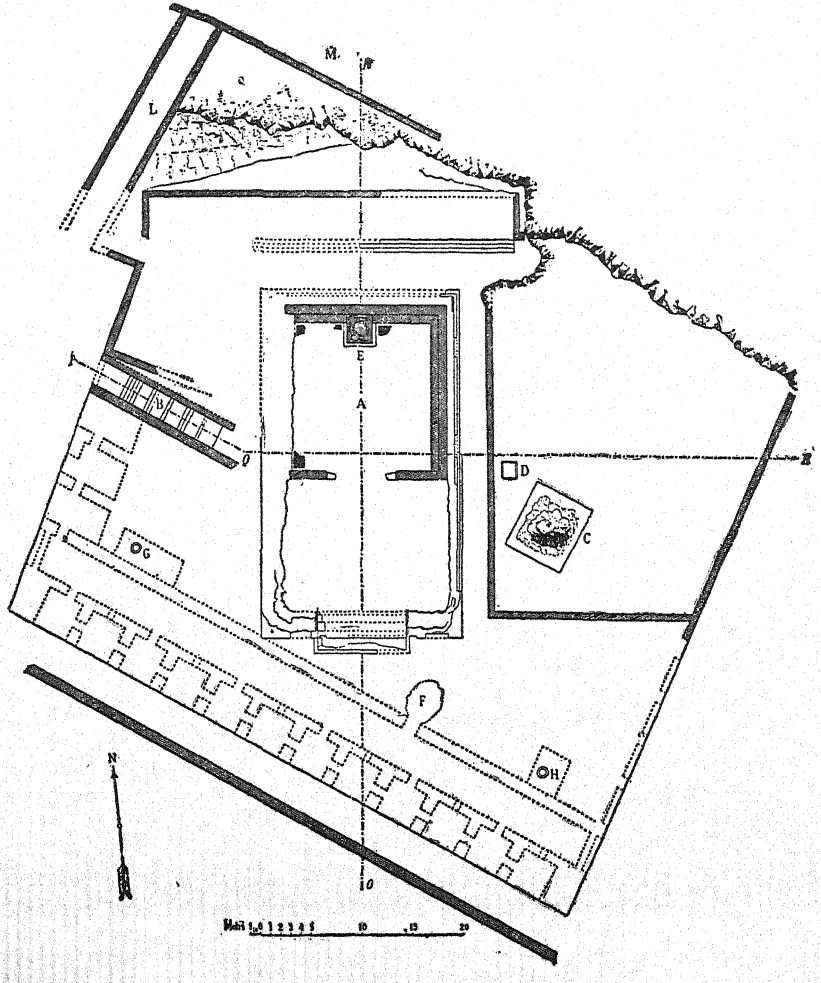


FIG. 33.—GROUND-PLAN OF THE TEMPLE AND PLATFORM.

It was built like all the rest of the temple in *opus incertum* and was externally decorated with semi-columns attached to the walls which were also built of *opus incertum*, except their lower portion, which was formed of a half drum of travertine. Several of these semi-cylindrical blocks of travertine were found. There remain in place along the walls of the cella the square blocks of travertine upon which the semi-columns rested, of which there were six on each long side and four at the end. Against this end wall at the point marked E on the plan is a brick base, with its cornices, the object of which was to bear the statue of the god. The pavement is of white mosaic surrounded by a dark framework.

The *pronaos* is 12.80 m. long, and on its front there are still the remains of the staircase. It was decorated with large channelled

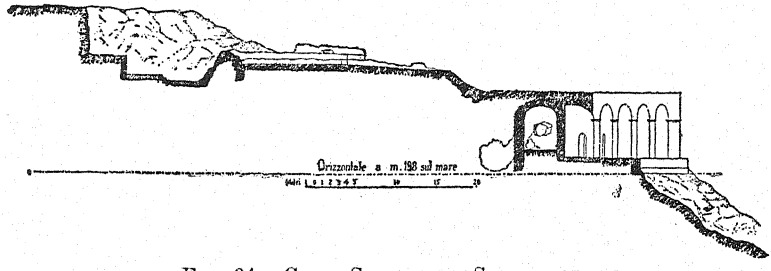


FIG. 34.—CROSS SECTION OF SUBSTRUCTURE.

columns and with capitals of Corinthian style, all in the alabaster of the quarries of the Circæan Mount. The fragments of the Corinthian foliage that have been found, show from their masterly execution that they belong to the very beginning of the imperial period.

The stylobate, which is quite well preserved along the eastern side, consists of large blocks of sandstone with a cornice, a lintel, a concave and a reversed moulding. This part, also, from the perfection of its execution, belongs to the period between the close of the Republic and the beginning of the Empire. To the same time belonged the stamps

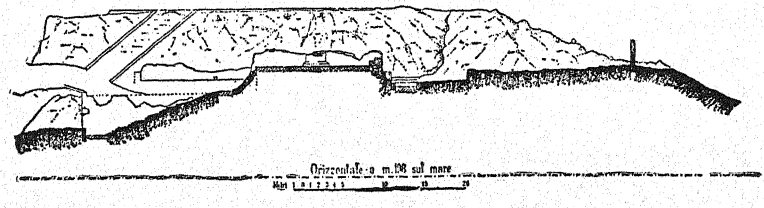


FIG. 35.—LONG SECTION OF SUBSTRUCTURE.

on the tiles and bricks which were found during the excavation: some of these were already known and belong without doubt to this age; others are new, such as that mentioning L. Domitius Lupus and a slave named Felix. There are certain lion heads also, in the same alabaster, used for gargoyles, which appear to belong to an even earlier date.

The temple was completely destroyed by fire, which even calcinated some of the large blocks of the basement on the eastern side. The violent action of the fire is shown everywhere, and a heavy layer of ashes and coals covers the ruins. It is also evident that there was willful destruction, for the statues which decorated the temple were broken in many pieces, so that only a few fragments have been recovered, sufficient merely to show the good design and the taste with which they were executed. The disappearance of the columns, of which but a single drum was found, and of many other architectural features, lead to the belief that, on the destruction of the building itself, its remains were cast down the mountain side. This destruction of a magnificent temple is probably due to the reaction which took place after 426 A. D., when Theodoric issued his decree for the destruction of Pagan temples.

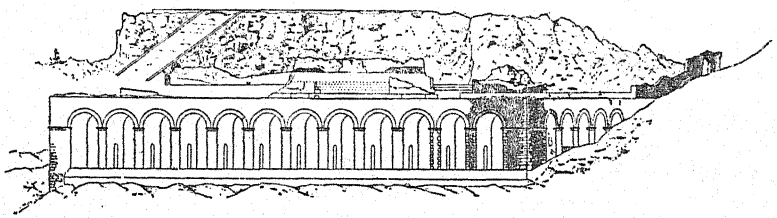


FIG. 36.—FACE OF THE SUBSTRUCTURE.

Along the east side of the temple, among the ashes, there were found many votive objects, which had been spared by the fire. Two inscriptions show that Venus possessed a sanctuary in the large temple. Only a few coins were found: one is of Augustus, one of Faustina the younger, and one of Marcus Aurelius.

Cave of the Oracle.—At a short distance from the temple to the east, there came to light a singular structure. It consisted of four walls, about .75 m. high, forming a rectangle of 6.90 m. by 6 m. It is marked C on the plan. Within this structure is a natural rock which is pierced at a point corresponding to the centre of the rectangle. It was found that under this rock there opened up a small cavern, now hardly 7 m. in depth, which communicated with the outside in some manner. It is certainly the cavern for the answers of the oracle. It

is conjectured that the origin of the sacredness of this rock lies in its having been struck by lightning at some time, and so having become a bidental shrine, because Jupiter had shown his power upon it. Hence it was shut off from public gaze and was covered in by a small roof, supported by brick columns of the Ionic order.

The Substructure.—The temple having been found, it became evident that the great arcades should be recognized as the substructure which sustained the platform upon which the temple was erected. This substructure extended for 62 m. along the southwest side and 24 m.

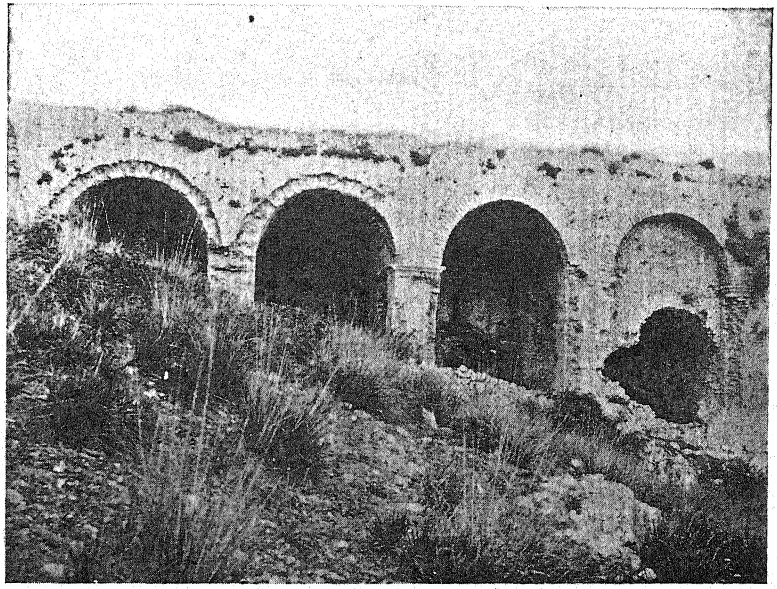


FIG. 37.—ARCADES ON SIDE OF SUBSTRUCTURE.

along the northwest side. It must be granted that the labor of forming a suitable plateau upon which to erect the temple was colossal. It was necessary at the rear to cut away a large section of the mountain, and in order to conceal the rough rock-side, a portico was erected behind the cella. It was built also of *opus incertum*, covered with stucco, painted in yellow and red and with columns of Corinthian order. At its base it was bordered by a line of four steps, cut away out of the live rock. The front of the platform had to be formed by the erection of this immense mass of brickwork in the form of arcades and vaults. The plateau thus formed is irregular in shape. The rain water was collected in two large cisterns, marked G and H on the plan. The axis of the temple is not normal to the front of the sub-

structure, for the latter follows the form of the hillside, while the temple was exactly oriented. Communication was established between the temple area and the plain below by a staircase marked B on the plan. It is interesting to note that a second cavern, also used for religious rites, was reached from the interior of the arcade of the substructures.

The reason for the choice of this especial site for the temple was evidently that from this point it could be seen as far away as Fondi and Gaeta to the east, and Antium and Ardea to the west; it also overhung the city from which it would have been invisible had it been built upon the summit of the bluff. This fact is a final proof of its identity with the temple of Jupiter Anxur, as it corresponds exactly to the position given to it by Virgil.

Citadel.—The temple was defended by a citadel which was reached by a staircase cut in the rock at the point marked L on the plan. But few of the remains of the fortifications of the citadel have been found. They connect with the great surrounding wall, with its towers, which protect the mountain along the north-northwest slope. The structure in *opus incertum* is of the same quality as that of the walls of the temples, and its substructures entirely exclude the possibility that this fortified wall should be of the time of Theodoric the Goth.

Votive Objects.—It is not improbable that the name Anxur represents the original divinity worshipped by the Volscans, to which conception there was added later, in this as in so many other cases, the idea of Jupiter. This is confirmed by the character of the votive objects, which are genuine playthings (*crepundia*). These rare objects are all of fused lead, and represent the furniture of a dining-room,—table, plates and kitchen utensils,—all executed in the style which was in vogue at the close of the Republic or the beginning of the Empire. There is a *mensa tripes*, or table with three legs, a seat like an arm-chair, or *cathedra supina;* then comes a four-legged, oblong table, which reproduces the sideboard, upon which the dishes were to be placed as they were brought in, and finally the candelabrum, to light the feast, and the youthful waiter (*puer dapifer*) bringing in a tray, or *ferculum.* It is known that especial garments and especial sandals (*vestis cenatoria*) were put on in going to table by the Romans, hence we have a small model of such sandals. Then follow the dishes for the table (*patinae*); some of which are represented with the viands upon them, such as a plate with two fishes. There is one of extreme elegance, in the form of a shell; with one exception, all have two handles. Some of the dishes seem to be for fruit. Strange to say, there seems to be but one vase which could be used for drinking. It is certain that it was to Jupiter as a child that these playthings, small

reproductions of objects in actual use, were offered as gifts by some worshipper. Almost the only other similar collection of objects is that now in the Museum of Reggio, which were found in the tomb of a child.

When I visited Terracina in 1893, I had two photographs taken of the substructures of the temple, and shall here reproduce them (FIG. 37 and PLATE XVII), as they may add to the interest of the above notice; now that it is proved that these substructures belong to at least as early a period as the time of Augustus, their importance is considerable for the study of Roman architecture.

VERUCCHIO.—EARLY ITALIC NECROPOLIS.—Some fresh contribution to the study of early Italic culture has been brought by the new explorations made by Dr. Tosi at the necropolis of Verucchio, near Rimini. Here more than fifty tombs have recently been examined, and some of them are singularly rich in sepulchral furniture. The terracotta ossuaries, with geometrical decoration, all of the so-called Villanova type, in the shape of two truncated cones joined together at their wide base, are almost always single-handled, and with a cap-like cover on the top. The tombs in one part of the cemetery were so crowded together that the ossuaries were piled one upon another, a circumstance not hitherto observed in the necropolises of this type, but only in those of the *terramare*. This fact adds weight to the hypothesis of Helbig and Pigorini, who admit an ethnographical affinity between the inhabitants of the *terramare* and the Italians of the Villanova period. A great portion of the grave furnishings were found inside the ossuaries, together with the burnt bones, but many of the objects were also found outside. They consist, amongst others, of many bronze fibulae, of which several were very archaic; two bracelets of bronze wire, each with twenty-one spirals, still preserving their elasticity; a razor in the shape of a half-moon, with incised ornaments; and a curved iron dagger, a rare type in cemeteries of this character. Of terracottas the most remarkable is a double-crested helmet of natural size, which probably served as a cover to the ossuary of some warrior. It is an exact copy of a real bronze helmet, such as those found in the tombs of Tarquinia. We thus learn that this kind of helmet was common to the ancient settlers both on the Tyrrhenian and Adriatic shores. The handle of a cover in the form of a rude naked female figure, with the left hand on her breast, and the right on the lower part of the body, is an imitation of the bronze statuettes imported into Italy by Oriental traders.—HALBHERR in *Athenæum*, March 23; *cf.* BRIZIO in *Not. d. Scavi*, 1894, pp. 292–307.

VETULONIA.—CLOSE OF THE REPORT FOR 1893.—In the October number of the *Scavi*, Signor Falchi publishes the close of his report on the

excavations in the tumulus of La Pietrera. It had at first been the plan to entirely demolish this tumulus, which had yielded so many highly artistic treasures already described in this JOURNAL. But it was found, in 1893, that this total demolition would endanger the stability of the domical chamber in the centre of the mound, so that it was decided not to carry the excavations any lower than the stratum in which the rich funerary objects had been found. The removal of this much of the earth was comparatively easy. Of great importance was the discovery of sculptures in the local stone called *sassofetido*, near the domical tomb, similar in style to those already found and noticed in the JOURNAL. The best preserved of those is a fine female bust of natural size, to which probably belongs the head found during the preceding year. The arms, which are damaged, are bent, and the hands folded on the breast. The figure is without drapery, but wears a necklace and a highly decorated belt, with rampant winged lions. There is also a second bust of similar size and style, but in very bad preservation, and fragments of hands and other parts of figures. These fragments, like those precedingly found, were carved on slabs in very high relief. They were found together with large slabs of stone, and were placed in such a way as to show that they had been removed from the interior of the vaulted chamber by whoever had broken into the top of the dome.

On the east side of the tumulus was found a small cone which marked the place of a deposit of funerary objects, placed as usual around a skeleton. These objects were, however, of but little importance.

Interior of the Chamber.—Considerable work was undertaken in the interior of the domical chamber in order to insure its stability, and in the course of it a few discoveries were made, consisting mainly in the lower end of two statues in high relief, of natural size. The two feet placed close together, rested upon a heavy, formless base, slightly pyramidal in shape, which was fixed in the ground in such a way as to make it appear that the figures rested on the pavement.

Excavations at Le Migliarine.—Having finished the preceding excavation, Signor Falchi decided, in the light of all the experience thus gained, to explore some of the many tombs lying at the feet and to the northeast of the hill of Vetulonia, about three kilometres from La Pietrera, along the Emilian Way, with the object of completing, by trial excavations on different sites, the survey of the necropolis of Vetulonia. The first site chosen was at a place called *Le Migliarine.* There were here, on the left, an artificial rise of land, and on the right two small tumuli. The first trial was made in the slightly rising ground, and here there came to light a circle of white slabs placed upright in

the ground, which proved the presence of a circle tomb similar to those found at Vetulonia itself. After the discovery of minor objects of a style similar to the contents of the tombs in Vetulonia, an important funerary deposit came to light close to the centre of the mound. This consisted of: (1) a large bronze vase, with two handles; (2) gold bracelets identical in form and style to those in Vetulonia itself, two of which were reproduced in a recent number of the JOURNAL, and decorated, like them, with rows of heads and bands of filigree work; (3) some gold balls; (4) four gold fibulæ, the body of which is formed of a winged animal; (5) some vases, dishes and two candelabras of bronze; (6) many terracotta vases of Bucchero ware like those from Vetulonia, etc. All these objects were placed upon a plank of black and shining wood, covered with bronze plate. Not far from this deposit were found two large stone cones, like those found in Vetulonia itself.

We may, therefore, conclude that even in the plain, about three kilometres from the central necropolis of Vetulonia, there still were no tombs belonging to a later age than those on the hill itself, and that these plain tombs contained objects entirely similar both in date and style. We may conclude that it is pretty certain that this famous city of Vetulonia fell into decay and was abandoned at last by its illustrious inhabitants at a very early date, and this date, in view of the entire absence of Hellenic vases in its tombs, may be determined to be earlier than the 6th century B. C.

Tomb of the Potter.—One of the two mounds on the opposite side of the road was then explored. At about two and a half metres from the centre there was found, at a very slight depth, a funerary deposit of exceptional extent, character and interest. In contrast to the other tombs, there was no trace of the usual stones, or any other sign of protection, the fact that these objects had escaped the ordinary fate, and were merely covered with earth, led to their almost complete preservation. In only two other cases has an exception been found to this general law of destruction. These two exceptions were the tomb of the Chief and that of Val di Campo. Signor Falchi calls attention to the fact that all the tombs with stoned and broken contents thus far discovered were of women, whereas these three exceptions are of men. Hence it would seem as if the stoning were confined to those tombs containing rich jewelry, which it was thus sought to render useless for the future.

The fictile objects found in this Tomb of the Potter consisted of a large number of unguent vases of great variety and peculiarity of form, arranged with great care around two bronze vases full of burnt bones, with a few other objects of bronze and iron. There were no

such objects of gold or silver, or other precious materials as were found in the preceding tomb. Among the most peculiar of the unguent vases, the following may be mentioned: (1) Vase in the form of a dead hare, its head fallen back and its limbs extended; this is the type of eight or ten vases, each varying somewhat in detail, especially in the position of the animal, and all are in very delicate reddish-yellow clay. (2) Vase in the form of a horse's head perfectly reproduced, with its harness painted in black. (3) Vase in the form of a crouching doe, with legs bent under her. (4) Vase in the form of a crouching hare, with ears stretched back. (5) Vase in the form of a goose or duck. (6) Vase in the form of an Egyptian sphynx, with beardless human head, and tail curling over and resting upon the body. (7) Vase in the form of a boot. (8) Vase in the form of a helmeted head. (9) Vase in the form of a kneeling nude female figure, with arms bent and hands closed; the long hair falls loosely over the shoulders and the opening of the vase is in the top of the head. This figure is of exceptional importance, as it is executed with a degree of naturalness and a harmony of lines and proportions such as show the potter who modelled it to have been a genius. He had the passion to imitate perfectly anything that struck his fancy. It would seem as if this is his tomb, and that in it were placed by his family the best samples of his art, together, perhaps, with the instrument of his craft, as will be later on described.

Cav. Falchi adds: "These ceramics, which are in a great part new in Etruria, but not new in the Orient, are of such inestimable value, not only for ethnology, but for the chronology and history of art, that I hope they will be the object of careful study. In this hope I call the attention of the learned to the appearance in a single tomb of these fictile objects of such great variety, which appear to have been produced by a single hand, and in particular I wish to call attention to the arrangement of the hands of the kneeling woman, with her fists closed except for the thumbs, which are pointed upward exactly as in one of the sculptures in *sassofetido* stone found in the tomb of *la Pietrera*.

The bronze objects were placed close together in the centre of the funeral deposit, and included two high and elegant wine jars, or oinochoai, a large, smooth basin, full of burnt bones, a bronze box resting on four feet, also full of bones, and finally a small instrument, with a long handle, in which is stuck a small blade of the same length, ending with a single sharp edge, which is probably the instrument used by the potter to model in wet earth the objects which he thought worthy of reproduction, some of which he must have seen in distant lands, while others he imitated from native originals. Toward the centre of

the mound there was discovered, as in the preceding circle tomb, a cone of *sassoforte* stone identical in form with all those found in the other tombs, as well of inhumation as cremation.

The exploration of the neighboring mound of the same dimensions and form, shows that it had been already searched and plundered in early days by means of a deep ditch.

Tombs of Franchetta.—The Pietrera hill is bounded on the south by a narrow and deep gully, called Franchetta, the opposite side of which is bounded by a low slope. Along the summit was visible a regular series of artificial rises on the surface, arranged in straight lines in ever-increasing size from below upward, and terminating in a real tumulus of considerable size. The lowest and smallest mound was first explored, and disclosed a walled circle made of stones placed together without cement, and encircling a number of tombs for inhumation, long since despoiled, and separated by large upright slabs of stone, while other slabs were used to cover them. The few objects found were of the same character and age as those found in all the other tombs.

The second tomb, instead of being surrounded by a wall of stones, was encircled by large white slabs of *sassovivo*, placed on end near each other. The diameter of the circle was 18 m. and the height 4 m. A square hole in the centre, measuring 4 m. by 2 m. by 2.30 m., contained two skeletons. Upon the head of each was placed a beautiful bronze ax, in perfect state of preservation. Its round and heavy iron handle was covered with a heavy bronze plate. It is valuable as showing the manner in which the head of the ax was secured to the handle. Probably its perfect state of preservation is due to the fact of its being an instrument for religious use. Near it was a bronze incense-burner, similar to others already found, and a conical helmet in poor condition. On the chest of the same skeleton were various bronze fibulæ, covered with gold leaf, and others with amber bow. All the rest of the central cavity had been destroyed by means of a deep trench which had cut through the centre of the skeletons.

The third tomb differed from the preceding only in its slightly larger size, and it also contained a central cavity, which, like the others, had been explored in early times. It contained the remains of a skeleton and no objects of importance.

While the preceding three tombs projected so slightly above the flat surface as to allow of easy cultivation, the fourth was a genuine tumulus of pronounced shape, 4.30 m. in circumference. It was bounded by a stone wall, which formed a terrace, and is still preserved in some proportions. Although this mound appeared not to have suffered from exploration, it had evidently been anciently visited, and

nothing was found in it but an object left by chance, namely, a fragment of a statue of natural size, similar to one found last year in the great mound of the Pietrera, but of far greater importance. The fragment consists of the head, with part of the neck and chest, and is remarkable as having been executed up to a certain point and then, when still unfinished, thrown away. It is, therefore, of extraordinary value in its very incompleteness, as revealing the process used in blocking out sculptures at this early date. The head, like that of the Pietrera, is of a woman. In regard to its date, Cav. Falchi regards it as contemporary with the first domical chamber of the Pietrera, whereas the second tomb described above is evidently later than the destruction of this first chamber, as it contains some of the blocks of stones with which it was constructed. Falchi goes so far as to believe that this head, blocked out and then thrown away, is that of the same person whose finished head was found in the Pietrera mound, so close are the similarities.

Cav. Falchi closes as follows: "This report does not complete the account of the excavations on the hill of Vetulonia in the autumn of 1893, for there should be added to the magnificent results obtained by the exploration of its necropolis, a description also of the still more magnificent results obtained in the area of the city itself of Vetulonia, within the circuit of its great walls, telling of the uncovering of part of the city, of its walls preserved after an early fire, of its streets, its wells, the many objects found in its ruins, including many coins, which in great part belong to Vetulonia itself. But as Professor Milani has anticipated such information in his two reports, one called *Una Seconda Vetulonia*, printed as manuscript and communicated to the *Lincei* in June, 1893, and the other entitled *Le Ultime Scoperte Vetuloniesi a Colonna*, read at a meeting of the *Lincei* on November 26, I shall speak of them in my report of future excavations, which I hope to be permitted to continue, not only in the necropolis, but also in the ancient city."

EXCAVATIONS DURING 1894 ON THE SITE OF THE LATER CITY.—The continuation of the excavations at the site called *Poggiarello*, led to the uncovering of a large tract (106 m.) of the main street of a city, thought to be the late Vetulonia (the city built by the people who abandoned the ancient Vetulonia), and of a new series of rooms along this street which seemed to have been used as shops. The street, which is 3.30 m. wide, has no sidewalks, and shows no traces of the usual ruts formed by wheels of vehicles. The coins gathered among the carbonized ruins in these rooms confirm the chronological conclusion expressed in the *Rendiconti dei Lincei*, 1894, p. 844 sqq. There are a number of Etruscan coins, such as a Quinarius of Populonia, and an ounce of

Vetulonia, and six sextants, also of Vetulonia. There are many Roman coins of the sextantial and uncial periods. One coin dates from 88–89 B. C. The latest coin is one attributed by Babelon to the year 84 B. C., which would harmonize with the opinion of Professor Milani, that the city which from the hill of Colonna overlooked the main roads of Maritime Etruria, was burnt at the very time (79 B. C.) in which Volterra and Populonia, falling into the hands of the followers of Sylla, suffered the destruction which befell all the Etruscan cities that had espoused the cause of Marius. Only a few objects of art were found in the course of exploration of these rooms; among them are two bronze statuettes of an Etruscan-Roman divinity, or rather a domestic lares, such as the Romans called *Jupiter Salvator* or *Genius Jovialis*.

An attempt was made to excavate in a stratum below the Roman level; but nothing was found that could be definitely dated from the Etruscan period. The casual discovery, however, of a late Attic vase, leads to the hope that systematic excavations within the Pelasgic walls may bring to light some traces of the pre-Roman city.

EXCAVATIONS DURING 1894 AT THE OLD VETULONIA.—*Necropolis.*—The excavations in the necropolis during 1894 were successful. At a short distance from the Pietrera tumulus, on the street of the tombs, were found the remains of a rectangular structure, 9.40 m. by 6.10, built of large blocks of stone without cement, but worked with a chisel. In two were found fragments of fictile decoration belonging to the period between 350–250. In the same part of the necropolis, and precisely where last year was found the magnificent gold fibula decorated *a pulviscolo* with figures of animals, there was found a circle tomb in which, together with many fragmentary bronzes, there came to light a well-preserved bronze boat. It is smaller and more simple than that of the tomb of the Chief (see JOURNAL for 1888), and corresponds almost exactly with that of the museum of Cagliari, published by Pais (Perrot, IV, fig. 83). An interesting feature of this vessel is a handle ending in a hook, surmounted by a decorative animal in massive bronze, formed by two affronted ram's heads.

Poggio alla Guardia.—On this part of the site, not far from the street of tombs, there were found under a mass of stones two cylindrical *situlas* of reddish-yellow earth, decorated, the one with eleven horizontal bands in relief, of the rope pattern; the other with ten lines of the same decoration. These are the first *situlas* of this characteristic type that had been found in this necropolis, and their importance is great in connection with the origin and the development of this vase, which is the prototype of the *cista a cordoni*. Together with these pails were found five umbilicated platters of the same reddish-yellow earth,

an unguent bottle of the Greek islands, and other fragments belonging to a tomb of the eighth century.

On the same site, but among the Italic well tombs, there were found five tombs of the class called, by Falchi, tombs of strangers. These funerary deposits correspond to those of the circle tombs in which there are no remains of either buried or burnt bodies, except certain crowns of teeth which were often found near the most precious objects. One of these deposits has given a number of cast bronzes of a new type, with decoration of human, animal and floral forms belonging to the very beginning of Etruscan art. Another of these deposits is composed of simple necklaces of amber and of bronze, but is remarkable for a pendant in the form of a miniature chariot with its horses, and two persons seated in it. What is most interesting about this chariot is, that it is not in the form of the usual *biga*, such as have been found in the shape of toys in some Italic tombs, but seems to present the original type of the Lucumanian *carpentum* of the Etruscans and Romans. The two persons seated on a high-back bench seem to be a man and his wife, and remind one of Livy's description of the chariot upon which Tarquinius Priscus and his wife Tanaquil arrived in Rome, and of that used by Tullia after the murder of the second Tarquin. It appears to be drawn by mules.

From an already disturbed tomb in this vicinity, there comes a monument which will at once attract attention, and is the most important object found during the excavations of 1894. It is a stele of sandstone, 1.07 m. high, .56 m. broad and .16 m. thick, upon which is a long Etruscan inscription, and beside this has scratched upon its surface a warrior walking toward the left, with a pointed beard, wearing a helmet with a crest and *coda*, and holding in his right hand a large iron shield; between the legs is a lanceolated palm. The emblem on the shield is a star of six rays, obtained by segments of a circle. The helmet corresponds to a couple of others found at Vetulonia, but the battle ax with short handle and double edge, with which the warrior is armed, does not correspond to any of the arms which have heretofore been found in the excavations. The inscription is in parts very difficult to read; it begins with the well-known prenomen *aules;* its palæography corresponds to the inscription on the cup in the tomb of the Chief.

Professor Milani concludes as follows: "In the technique and character of the decoration, this stele, the first which had been found at Vetulonia, recalls the well-known ones of Lemnos, Pesaro, Novilara, and the region of Padua. But in the subject and in other respects, it should be rather connected with the sculptured steles of the plain of Volterra, especially those of the plain of Fiesole described by me in

the *Notizie degli Scavi*, 1889, pp. 153, 154; 1892, p. 465, and compared with the monuments of the Hittites. Ethnographically, and through its Asiatic resemblances, the double battle-ax of the warrior is especially remarkable, called in Greek πέλεκυς, ἀξίνη, λάβρυς, βαύπληξ, and in Latin *securis*, *bipennis*, *dolabra*. We find it used by the Trojan Pisander in attacking Menelaos, drawing it out from beneath his shield (II. XIII, 611), and also by the Trojan warriors in the fight of the ships (II. XV, 711). This is the weapon of Zeus Labrandeus, of Karia; the weapon of Zeus Dolichenus, of Lykia; the weapon, or attribute, of the Pelasgic Dionysos, of Tenedos, which passed also to Pagasi in Thessaly, to Heroia in Arcadia and in Thrace (Myth of Lykourgos); it was the primitive attribute of Hephaistos, the great maker of weapons of the Tyrrhenian-Pelasgic Lemnos; the weapon of the Amazons, of the Scythians, and the Hittites (Perrot, IV, p. 800, fig. 279). The Asiatic or Pelasgic origin of this weapon is thus evident, and I therefore see in its presence at Vetulonia, on a monument which is certainly one of the most archaic of Etruria proper, and which in other ways also recalls Asia Minor and the Pre-Hellenic and Tyrrhenian-Pelasgic settlements, a new and eloquent argument in favor of the Asiatic, of the Pelasgic or Pelargic origin of the Etruscans."—*Not. d. Scavi*, 1895, pp. 22–27.

DATE OF THE EARLIEST MONUMENTS.—M. Salomon Reinach, in his Asiatic news in the *Revue Arch.* 1894, refers to my note in this JOURNAL IX, p. 213, on the domical structure at Vetulonia, adding that of course I cannot possibly mean that it belongs to the seventh century B. C. Such, however, was the date that I intended. I simply follow in this the opinion of the two men most conversant with the excavations, Prof. Milani and Cav. Falchi. In fact Milani, on p. 24 of the *Scavi* for 1895, has changed his opinion, and would refer the sculptures and architecture of this monument to an even earlier date—to the eighth, rather than to the seventh century—and in a note says that for many reasons, which he will give elsewhere, he is of the opinion that the chronology of the earliest architectural and figured Etruscan monuments should be given an earlier date. I should not myself venture to regard the above monument as earlier than the seventh century.

This date, in so far as it relates to the sculptures, especially to the steles that are so similar to the Hittite sculptures of the ninth and eighth centuries, is certainly not too early, and I cannot explain M. Reinach's objection to it, for which he gives no reason.—ED.

Early Christian, Mediæval and Renaissance Art.

BIBLICAL SUBJECTS IN EARLY CHRISTIAN ART.—M. Müntz presented a paper to the *Académie des Inscriptions* on Christian art and the illus-

trations of the Old Testament to be found in the works of art belonging to the early times of the Church. The V century might be considered as the golden age in Biblical painting. Thanks to the numerous poems which were devoted at this time to the book of Genesis, a number of episodes previously unknown to the Romans became popularized both in Italy and Gaul. The popularity of these Israelitish subjects is exemplified by the mosaics of Sta. Maria Maggiore at Rome, executed between the years 432 and 440. M. Müntz states that these compositions, contrary to the generally received opinion, are completely independent of the celebrated poem of Prudentius—the "Dittochaion." The artists have gone directly to the Bible for their inspiration, and consequently their forty compartments have barely sufficed to trace the history of the Jews from Abraham to Joshua; whilst Prudentius had comprised in twenty-four metrical stanzas the whole of the Old Testament from Adam to the Babylonish captivity. In the V century, likewise, the illuminators had taken in hand the stories of the Old Testament; and although these miniature illustrations of manuscripts were designed for the select classes, and not, like the mural decorations, intended to appeal to the common people, nevertheless it is possible to quote instances where these almost microscopic pictures have served as a model for large frescoes and monumental mosaics. It has been lately shown that many of the miniatures of the celebrated Cottonian Bible (V and VI centuries) have been reproduced, in an enlarged form, in the mosaics of the basilica of St. Mark at Venice (XIII century). A recent publication, of which M. Müntz exhibited specimens to the Academy, now permits us to study, in the minutest details, the most ancient illustrated manuscript of the Bible, the Greek Genesis of the Imperial Library at Vienna. These miniatures, the style of which offers many analogies with the catacomb paintings, are in turn conventional and realistic.—*Athenæum*, Sept. 15.

BULLETTINO DI ARCHEOLOGIA CRISTIANA.—A group of the friends and pupils of the lately deceased De Rossi have undertaken to continue the publication of the *Bullettino di Archeologia Cristiana*, founded by this illustrious archæologist. Its programme is to be made broader, and it is to be henceforth open to contributions from all archæologists devoted to Christian antiquities. The directing committee is composed of MM. Enrico Stevenson, M. S. De Rossi, Mariano Armellini and Orazio Marucchi. We had heard with great regret the news that this unique and indispensable review was to cease its publication, and this later news is extremely welcome. The review will be called the *Nuovo Bullettino*, in order to distinguish it from the earlier series of De Rossi's review.

THE PRESERVATION AND RESTORATION OF ITALIAN MONUMENTS.—In connection with the detailed inventory of works of arts in churches and convents, which was commenced some time since by the order of the Minister of Public Instruction, it has been ordered that such works shall always be exposed to view to the public during the hours when churches are open, and since that time the curtains that often covered the paintings have been removed and the sacristy doors are no longer closed.

With a view to employing the best means for the preservation and restoration of ancient paintings in Italy, the Minister of Public Instruction has opened a competition on the ancient and modern technique of all kinds of painting, including mosaic work. The competitive memoirs presented will be judged in June, and a prize of 3,000 francs given to the winner.—*Chronique*, 1895, No. 4.

NANNI DI BANCO.—Marcel Reymond continues in the *Gazette des Beaux Arts* (Jan., 1895) his studies on *La Sculpture Florentine au XV^e^ siècle*. His second paper is on Nanni di Banco (1374(?)–1421), the contemporary of Ghiberti, Donatello, Quercia and Luca della Robbia. Had he not died comparatively young his fame would undoubtedly have equalled theirs. M. Reymond points out Vasari's arrant injustice towards Nanni, and believes that he exercised great influence in forming Donatello's talent. Three of Nanni's fine statues at Or San Michele are earlier than Donatello's first statue, and when the commission of carving the Madonna over the door of the cathedral was given to Nanni it was a recognition of him as the foremost sculptor of the day. His style was nobler, broader, purer and more monumental than that of any other Italian sculptor. He is the connecting link with the XIV century.

ITALIAN ART IN THE TYROL.—Herr Schmoelzer has published in the *Mittheil d. kk. Central-Commission* (Vol. 21, No. 1) a description of the works of art in the churches or chateaux of southern Tyrol. Many of these belong to the Middle Ages or the early Renaissance. At Volano is a Last Judgment, dated 1514, by Francesco Verlas, of Vicenza, and other paintings of about 1500, of the Venetian or Paduan schools. In the church of San Rocco and in the church of St. Ilario, near Rovereto, are frescoes of the end of the XII century. At the castle of Avio are paintings of the purest Giottesque type, and in the chapel others that are semi-Romanesque, semi-Gothic. At the church of Vivezzano there is a fine portal of the XVI century, painted glass of the same period, sculptured tombstones and a remarkable treasury. At Serso and at San Biagio near Levico are frescoes and sculptures of about 1500.—*Chronique*, 1895, No. 6.

AQUILEIA. — DISCOVERY OF EARLY CATHEDRAL. — Count Lanckoronski, of Vienna, has intrusted to the well-known archæologist, Niemann,

some excavations at Aquileia around the Romanesque cathedral of this city. They have already resulted in the discovery of the remains of an earlier church.—*Chronique*, 1895, No. 3.

BOLOGNA. — NICOLÒ DELL' ARCA. — The reliquary of San Domenico in the church of the same name at Bologna, designed by Nicola Pisano, was modified, as is well known, when the grand chapel to this Saint was constructed, and there was added to this reliquary a splendid marble top carved by Nicolò da Puglia, who is known on this account as *dell' Arca*. He finished the pyramidal top and the festoons with graceful *putti*, the statue of God the Father on the summit, the Ecce Homo with two angels, the four prophets, the saints Dominico, Francesco, Floriano, Vitale and Agricola, and the angel at the left bearing a candlestick. An ordinance of the Commune of Bologna, dated the 3d of June, 1469, retains all engaged in the work upon this reliquary to continue until its completion. This ordinance was repeated the 19th of September, 1470. Unfortunately, all the documents referring to this monument are no longer in the archives of the city of Bologna, but have been restored to the General of the Dominican order. In the *Archivio storico dell' Arte*, Sept.–Oct., 1894, is published a document which holds Nicolò and his associates to obey the directions of the Society of Arts of the city. In the same number of the *Archivio* is published a document concerning the image of the Virgin, which is now placed upon the façade of the Palazzo Publico at Bologna.

RAPHAEL'S ST. CECILIA.—It is well known that this painting now in the Royal Picture Gallery of Bologna, was ordered from Raphael in the year 1513 by Helena Duglioli, wife of Benedetto dall' Olio, a notary of Bologna. The story goes that one day she had an inspiration from on high to construct a chapel in the church of St. Giovanni in Monte, at Bologna, in honor of St. Cecilia. Antonio Pucci, her parent and protector, was put in charge of the construction of the chapel, and her uncle, Lorenzo Pucci, made the contract with Raphael for a painting for the high altar. The chapel was finished in 1514. The following document has been found in the archives of the city of Bologna: "In the year 1514 the blessed Helena, wife of Mons. Benedetto dall' Olio, a notary and citizen of Bologna, caused to have built the chapel of St. Cecilia and had Raphael of Urbino paint the picture of St. Cecilia, to cost a thousand golden scudi, and presented it to the church of St. Giovanni in Monte, with other sacred objects." Amongst the documents of the convent of St. Giovanni is found the deed of gift of the altar, bearing the date September 9th, 1516, and signed by the notary Antonio Monterenzi.

DATE OF THE DEATH OF ALFONSO LOMBARDI.—Vasari rightly gave the date of Alfonso Lombardi's death as 1536, but other writers upon this artist hav-

ing observed that his birth took place in the year 1487 and that his portrait in the second edition of the *Lives of the Painters* represented him as an old man, inferred that his death must have taken place many years after the date fixed by Vasari. Girolamo Baruffaldi in his life of this sculptor puts his death as late as 1560. In the archives of the city of Bologna there is preserved a letter from the Duke of Mantua, dated the 7th of December, 1537, which speaks of Alfonso Lombardi as already dead. This letter, therefore, settles the accuracy of Vasari's date.

GUIDO RENI'S SAN CARLO.—The archives of the city of Bologna contain a letter from the Senate of Bologna to their Ambassador at Rome, dated April 2d, 1614, and directing him to make payment to Guido Reni for the painting of the picture of San Carlo, to be placed in the church of the Medicants at Bologna. This letter, therefore, enables us to fix the date of the picture.

NOTICES OF PAINTINGS BY GUIDO RENI, CASTELLINO, CAVEDONI, GILIOLI DA CARPI, IN SAN SALVATORE.—The church of San Salvatore in Bologna was constructed between the years 1605–25; the names of all the contractors, with the architects, painters, etc., are found in the archives of the Canons of San Salvatore, now preserved in the archives of the city of Bologna. These show that payments were made at various dates between the years 1620 and 1625 for paintings by Guido Reni, Castellino, Cavedoni, Gilioli and Girolamo da Carpi.

ARTISTS OF THE XIV TO XVI CENTURIES AT BOLOGNA.—In the series of *documenti giudiziari* and other documents preserved in the archives of the city of Bologna, as many as one hundred and twenty-nine entries of artists living in Bologna from the year 1347 down to 1654 are published in chronological order in the *Archivio*. These comprise the names of architects, sculptors, painters, miniature painters and goldsmiths.—*Archiv. Stor. dell' Arte*, Sept.–Oct., 1894.

FLORENCE.—DISCOVERY OF CH. OF S. LEO.—At Florence, in the works going on in the centre of the city, there have been discovered the remains of the ancient church of St. Leo, which was one of the first parishes established in the town. The outer walls are in network (*filaretto*). The principal door has elegant mouldings, and at the sides a lozenge decoration of black and white marble.—*N. Y. Evening Post*, March 2.

A SCULPTURED ROMANESQUE FONT.—A very important piece of sculpture of the XII century has been added to the Museum. It is a large baptismal font from the neighborhood of Lucca. It rests upon a very solid twisted base, upon which are two small figures symbolising baptism and the devil. The basin has a diameter of 1.40 m., and is decorated with open-mouthed masks to carry off the water. The dome

above it is the most important part of the monument. Above are the twelve Apostles and below the twelve months of the year represented by figures draped in ancient style, whose attitudes or actions correspond to each of the months. Unhappily many of the heads have been knocked off, and the marble is in poor condition. The total height of the monument is 3.50 m., and its proportions are harmonious. Its importance is increased by the rarity of works of sculpture of this century.—*Chronique*, 1895, No. 4.

STATUE OF BONAFACE VIII.—The statue of Bonaface VIII, which originally formed part of the decoration of the façade of the Cathedral of Florence, was attributed by Vasari to Andrea Pisano. It had been lost sight of for several centuries—since the façade was demolished in 1588—but has now been returned not to its original position on the façade, but has been placed inside the main doorway. It was discovered in the Rucellai gardens some years ago by M. Müntz, purchased by the antiquarian Bardini, and finally given to the city of Florence by the Duke of Sermoneta on the condition that it should be placed in the façade.—*Chronique*, 1895, No. 4; cf. *Revue de l'Art Chrètien*, 1895, No. 3.

A PICTURE BY NICOLAS FROMENT.—M. Trabaud contributes to the *Gazette des Beaux Arts* a study and an outline of a painting of a tryptich in the gallery of the Uffizi at Florence, which is classified under the works of the Flemish school. It is, however, signed by a well-known French artist, Nicolas Froment, and dated 1461. The inscription reads: NICOLAUS FRUMENTI ABSOLVIT HOC OPUS XI. K. L. JUNII MCCCCLXI. This painting originally belonged to the collection of the Academy of Fine Arts, but was given to the Uffizi in exchange for a Taddeo Gaddi. The central composition represents the resurrection of Lazarus; the right hand side, Martha kneeling before Christ, and the left side Mary Magdalen washing his feet.—*Gaz. des Beaux Arts*, February, 1895, p. 157.

THE DISCOVERY OF A WORK BY FRANCESCO DI SIMONE FERRUCCI.—Among the last works of this pupil of Andrea Verrocchio, Milanesi, in his commentary to Vasari, mentions a tomb to Lemmo Balducci, placed in the hospital of S. Matteo, in the year 1472. This hospital was transformed into a church in 1735, and the church was demolished when the present Academy of Fine Arts was built in 1783. Venturi recently suggested that the bust in the Academy belonged to this tomb, and now B. Marrai has discovered considerable remains of this work of Ferrucci. According to the description by Del Migliore, an eye witness, the tomb had the form of the sepulchral monument of Pandolfini in the Badia in Florence, and contained a tablet with an inscription by Poliziano. This is now preserved upon the cenotaph of Lemmo, which is now in the church of S. Maria nuova, where it

was placed in the year 1845. The form of the tomb has been changed considerably; of the original tomb there remains only the base with two lions' heads in relief. The frieze with the arms of the defunct and his medallion likeness is applied to a sarcophagus of later date. The bust of Lemmo appears to have been not by Ferrucci, but by some artist of the following century. This bust formerly stood in the niche now filled by Michel Angelo's statue of St. Matthew.—*Repert. für Kunstwissen.*, 1894.

REDISCOVERY OF AN IMPORTANT BOTTICELLI.—In the Pitti Palace itself there has remained practically unknown an important painting by Botticelli. This picture was hung in a room of the second story occupied until lately by the Duke of Aosta. It might still have been hanging in this unworthy place had not an English artist, Mr. William Spence, visited the Duke and recognized the work as a Botticelli. The painting is a high canvas picture with two life-size figures. To the right is a youthful woman who holds in her left hand a mighty halberd and with her right seizes a centaur by the hair, whose expression and gestures are indicative of pain and subjection, although he is armed with a heavy bow and a quiver of arrows hangs over his horse-body. On the back of the female figure hangs a buckler. Her hair falls below her waist in waves, and around her head, arms and breast are twisted slender olive twigs. Her free drapery is covered with triple rings, each adorned with a diamond. The subject of this picture is not altogether clear, though one is inclined to think of the female figure as an Athena. But the association of Athena with a centaur is so unusual that we are inclined to look for a symbolic meaning, such as the triumph of wisdom over brute force; perhaps in this case the triumph of the intelligence of Lorenzo il Magnifico over the unskilled power of his opponents. That the painting was made for Lorenzo is evident from the frequent appearance of his device upon it. Vasari tells us that Botticelli made for Lorenzo a picture of Athena, but the painting to which he refers represented Athena as standing over burning branches. The painting shows the same broad and decorative handling as the birth of Venus, and must have been painted about the same time; perhaps it belonged to a cycle of large canvas pictures for one of the villas of Lorenzo. Both in color and drawing this picture belongs to the best period of Botticelli.—H. ULMANN in *Kunst. Chronik*, March 21, 1895.

There is a good half-tone reproduction of the picture in *Harper's Weekly* (New York) of April 13.

Prof. Enrico Ridolfi, director of the galleries of Florence, was the first to make the painting known in an article on the discovery in the *Nazione* (*An.* XXXVII, No. 61) of Florence, and this is summarized in

the *Chronique des Arts* for March 16. Pallas is robed in a white tunic under green drapery; her blonde hair falls on her shoulders. Ridolfi believes the subject to be the glorification of Lorenzo by the subjection of the genius of discord or violence. It may have been executed about 1480, when Lorenzo, returning from Naples, where he had succeeded in detaching Ferdinand I of Aragon from the league against Florence, was received with great festivities, which were described by Angelo Poliziano. He identifies it with the picture mentioned by Vasari.

Mr. Berenson has published an article in the *Gazette des Beaux Arts* (June 1, 1895, p. 469) accompanied by the finest reproduction yet given, a Dujardin photogravure. He denies that the painting is the one mentioned by Vasari, because Vasari says the figure of Pallas stands on fire-brands, and does not mention any second figure: besides the measurements and proportions of the canvases appear to have been very different.

Mr. Berenson, after speaking of the identity in style of the new *Pallas* with the *Fortezza*, and dating both from 1480, proceeds to show how by means of this fixed date it is possible to give approximate dates to a number of other works of Botticelli, for reasons of style. Evidently in 1480 there is hardly a trace left in his style of the influence of the Pollaiuoli. Hence he dates Botticelli's famous chef-d'œuvre, *Spring*, from the spring of 1478, as it still shows strong Pollaiuoli characteristics. Finding greater harmony of line in the *Birth of Venus* he dates it after the Pallas, and before the Sistine frescoes which rather abuse the linear element. This would date the Venus at latest from the spring of 1482, as the Sistine frescoes were commenced in the same autumn. The Villa Lemmi frescoes are later.

THE MEDICI COLLECTION IN THE SIXTEENTH CENTURY.—M. Müntz writes in the *Chronique* a letter on the modern works of art which formed part of the Medici collections of the sixteenth century. He announces that fifteen years ago he was able to study the inventory of the Guardia Roba of the Medici, so rich in indications on the works of art preserved in Florence. The text of these is about to be published in the Memoirs of the Academy of Inscriptions by M. Müntz, accompanied by a commentary, which is particularly complete in relation to the works of ancient art belonging to the first Grand Dukes. In general Müntz has not undertaken to identify the more recent works of art, leaving that to the Italian directors of the Florentine Museums, but he contributes here some notes upon the subject.

The Medici collections received certain works through the munificence of Popes Leo X and Clement VII; for example, the Laurentian

Library and such works as the superb vases in rock crystal, some of which bear the initials of Lorenzo the Magnificent, while others are the work of Valerio Belli. To the same Pope is due the copy of the Laocoön by Baccio Bandinelli.

The collection had been reduced to but very few pieces when Cosmo took the reins of government. He first added a number of ancient statuettes (such as the Chimera, the Minerva and the Etruscan orator), medals, vases and antiquities of all kinds, then modern works, such as sculptures, paintings, miniatures, cameos, etc.

The inventories are interesting as showing how free the restorations of ancient works were at that time, and how difficult it must be to distinguish now between the ancient work and the modern additions. Thus the inventory of 1571–1588 reports: "A statue of Venus, nude, in marble, larger than life size, standing with a Cupid at her feet, bought from Cardinal Colonna, without head, without arms, and with only one leg, restored by Master Sylla, who added to it an ancient head and made its missing members March 12, 1584."

These inventories give also much information on the reproductions of ancient works executed in the sixteenth century. The following may be gathered from them in regard to recent works of art: Donatello is represented by a composition of several figures in relief. Michelangelo by a model in stucco of his "giant" (probably David), by an unfinished David, by a metal reproduction of the Christ, of the Minerva, by a torso copied from a river god. In 1590 a bronze bust of Michelangelo entered the collection. Jacopo Sansovino is represented by his marble Bacchus and his bronze copy of the Laocoön. There are numerous statuettes by Bandinelli,—the bronze Venus, the bronze Hercules, the marble Bacchus, a bust of Cosmo. There is a Gladiator (1583) by Ammanatti. Other sculptors are named as being charged with the repairing of antique statuettes and for the execution of works. Such are Piero da Bargha, who has the title of sculptor of the Duke, Aliprando Capriolo of Trent (1584); Silla, who worked under the orders of John of Bologna (1584). As for the latter sculptor, his name often occurs. In 1578 he finishes his bronze crucifix, in 1580 his bronze Mercury, in 1584 three bronze statuettes, then a sleeping woman, a kneeling woman and the standing Hercules. It is known how numerous are the smaller Florentine bronzes at the close of the sixteenth century, especially the statuettes which are ordinarily regarded as a work of John Bologna. The inventory of 1571–1588 gives a long list of such works executed by Piero da Bargha.

Among the paintings, whose artists are mentioned, are a Virgin by Pontormo, also the author of a Venus and Cupid, three pictures by Andrea del Sarto, two Madonnas by Bronzino, by whom were also a

Saint Cosmo and a Saint John, as well as several sculptures. Among those that can be identified are such famous works as the portrait of Leo x with two Cardinals, by Raphael, and the portrait of Cardinal de Medici by Titian, which are both now in the Pitti.—*Chronique*, No. 9, 1895.

PORTRAIT OF MICHELANGELO.—In a monograph recently published in Florence, Sig. Caetano Guasti gives an account of a portrait of Michelangelo which hitherto has received little attention. This portrait, which is in the possession of Count P. Galletti, seems to be the likeness of the master noted by Vasari as having been painted by Giuliano Bugiardini for Ottaviano de' Medici. Guasti determines the date of this portrait to be the year 1532. Michelangelo was then 57 years old, with which age the appearance of this portrait corresponds very well. By means of this attribution the portrait of Michelangelo in the Louvre assigned to Bugiardini must be set aside, since an inscription upon that picture describes the master as in his 47th year. Two other portraits of Michelangelo, one in the possession of the Baldi family and another in that of Chaix d'Estang, claimed to be by Bugiardini, must also be set aside. Guasti judges from the modeling of the head and strength of the coloring that Michelangelo gave to this portrait the final touches himself. It is much to be desired that this painting should be examined by a thorough expert, on account of its importance for the history of art.—C. v. FABRICZY in *Repert. für Kunstwissen.*, 1894.

LODI.—S. MARIA L'INCORONATA.—Some new information concerning this interesting monument was published by L. Beltrami in the *Archivio Storico Lombardo* in 1893. The decree for building the church was made on the 16th of October, 1487, and in the following year the contract for the building given over to Giov. Jacomo Batacchio, who twenty years earlier was a mere mason at the hospital at Lodi. According to the wording of the contract the architect also undertook the terra-cotta ornamentation and figured decoration; accordingly we must now attribute to him not only the decoration on the capitals and pilasters of the lower octagon, but also the relief busts which decorate the arcades.—C. v. FABRICZY in *Repert. f. Kunstwissen*, 1894.

MILAN.—THE FIRST ARCHITECT OF THE CASTLE.—In the *Perseveranza* of the 9th of September, 1893, Luca Beltrami publishes a document of the date July 1st, 1450, showing that Giovanni must have been assisted by Marchaleone da Nogarolo, who must have been the first architect, as Giovanni died in December, 1451. His place was filled three years later by Bart. Gadio, of Cremona.—*Repert. f. Kunstwissen.*, 1894.

MILAN (NEAR).—DISCOVERY OF RENAISSANCE FRESCOES AND RELIEFS.—In an article in the *Perseveranza* of the 16th of February, 1894, the indefati-

gable investigator, Diego Sant Ambrogio, notices the hitherto unobserved frescoes well preserved upon the façade of the church of Vigano Certosino, near Gaggiano. They represent the annunciation, a glory of angels about God the Father and some figures of saints of the Carthusian order. In a medallion under the rose window is found the characteristic likeness of Gian Galeazzo Visconti, on both sides of which are shields with the inscription CAR(thusia) GRA(tiarum). These paintings have been found to be by Bernardino de Rossi, who is known to have made the frescoes in the atrium and in the entrance portal of the Certosa at Pavia.

A second discovery is an altar painting by Aurelio Luini, in good condition and surrounded by its original rich frame. It represents the Madonna and Child with John the Baptist kneeling before her and on either side S. Matthew and S. John the Evangelist, Sta Chiara and S. Stephen.

Finally, S. Ambrogio has discovered the original of the altar of the Certosa at Pavia, in a little church at Carpiano, near Melegnano. It is an original and documented work of Giovanni da Campione, of the year 1396, in the form of an altar table, the four sides of which are decorated with eight reliefs in marble, representing scenes from the life of the Virgin. Of the baldachino there remain the four spiral ornamented columns. This altar appears to have been taken to Carpiano in the year 1518.—*Repert. f. Kunstwissen*, 1894, p. 248.

PARENZO.—NOTE ON THE CATHEDRAL.—In view of the notice on the mosaics of the cathedral of Parenzo, published in a late issue (IX, pp. 482–4), we add the following note, connected mainly with its architecture and with traces of structures anterior to the present building, which belongs to the VI century.

At the June meeting (1894) of the Society of Christian Archæology in Rome, the Secretary, Prof. Marucchi, presented some drawings and photographs of the cathedral of Parenzo, recalling that he had previously spoken of it in connection with a publication of Dr. Amoroso. The drawings presented showed the successive structures which had been erected between the III and the IV cent. Some recent discoveries made by Mgr. De Peris resulted mainly in ascertaining two notable facts: first, the remains of the presbytery with the episcopal throne in the centre of the main nave and in front of the altar; and, secondly, the tomb of the martyr S. Maurus, made in the form of an arcosolium enclosed within the structure itself of the apse. It still remains difficult to assign certain dates to the various successive constructions, and especially to the primitive oratory which finally was supplanted by the magnificent cathedral.—*Bull. Arch. Crist.*, S. V, *an.* IV, No. 4.

PAVIA.—VANDALISM AT THE CATHEDRAL.—We judge that in building a façade for the Cathedral of Pavia which was left without one by its Renaissance builders, considerable vandalism must have been indulged in toward the remains of the ancient church of S. Maria del Popolo. The ancient cathedral of Pavia was composed of two churches—S. Stefano and S. Maria del Popolo—which were connected, one being used in summer and the other in winter. The people of the Renaissance with their usual self-sufficient vandalism started to build a great cathedral on the site of S. Maria del Popolo, but they only got as far as the choir. The work was taken up again on several occasions since the XV century and each time a further piece of the old church has been demolished, until now, when the façade is being finished, but little remains of the old work.

Dr. Taramelli says, "I must express my sorrow at the destruction, without a well-matured plan, of one of the finest and most ancient basilicas of northern Italy." One of the most interesting characteristics of the ancient church was that when, in the XII century it was rebuilt and covered with cross-vaults, its columns were left and used as the centre of the Romanesque grouped piers. See *Not. d. Scavi*, 1894, pp. 87–9: also Dartein, *Archit. Lombarde* and Taramelli's monograph.

An even stronger protest is made by Beltrami in the last issue of the *Archivio Storico Lombardo* (1894. III, p. 249). He tells how, in demolishing the front part of the present building to make way for the new facade, much more of the ancient structures came to light than was supposed: that twice the local Direction was obliged to order the suspension of the work in order to secure any exact record of the ancient constructions that were being demolished: that the action of the local direction was paralyzed by the complete lack of interest of the clergy in the memories of the past history of their church. It would have been perfectly possible to have preserved in the new construction some of the columns of the primitive wooden-roofed basilica which were enclosed in the Romanesque piers.

ROME. — A FRAUDULENT COLLECTION OF EARLY CHRISTIAN SACRED OBJECTS. — Father Grisar has rendered a great service to Christian archæology by proving conclusively the falsity of a collection of so-called early Christian sacred objects supposed to have belonged to a Bishop, and which for over ten years has excited great interest and attention, especially since the greater part of the objects came into the hands of Cav. Giancarlo Rossi, of Rome, who has published drawings of all the objects, accompanied by a text of nearly five hundred pages. This collection, if genuine, would be the most wonderful discovery ever made of this kind; there is no treasury of early Christian works that

can even approximate it in value, variety and extent. Although the many authorities on early Christian art who have examined it and written about it have expressed wonder at the unusual nature of the symbolism and style, and have varied greatly in the date assigned the objects, few of them have even questioned the authenticity of the collection. Father Grisar examines it from every point of view. He shows, in the first place, that the circumstances and place of the discovery are still shrouded in a mystery which is not only suspicious, but which can not be satisfactorily explained. He proves that the symbolism is that of the early Christian period, with many new features due to a vivid modern fancy, while the style is an imitation of works of the eighth and ninth centuries, of barbaric Lombard character. The forger, beginning with objects rather modest in appearance, on finding their sale so easy and profitable, indulged in the manufacture of works of greatest magnificence, such as would have seemed strange indeed to any prelate of the early church. This is especially the case with an episcopal gold crown and an episcopal mitre, such as never appeared in art until after the eleventh century. The forger carefully avoids the use of anything that would injure the attribution of these objects to the earliest Christian period, or would betray a modern hand. Not a single inscribed letter is to be found on any of the objects, nor is there a single nimbus or monogram—features which would be almost inevitable in any works in the style of these forgeries. Finally, a material proof of the forgery is given by the examination of some of the objects by experts, who were unanimously of the opinion that the flexibility of the silver was such as to make it impossible that these objects should be ancient, for silver loses its flexibility with age. They also proved that the oxidation was artificial, and produced by sulphuric acid. Here endeth, therefore, the famous treasury.

THE HOUSE AND BURIAL PLACE OF ST. BRIDGET.—In restoring in 1893–94 the Church of St. Bridget in the Piazza Farnese, in Rome, there was found on the architrave of the door an inscription in late Gothic letters reading DOMUS SANCTE BIRGITTE VASTENENSIS DE REGNO SWECI INSTAURATA AD ANNO DOMINI 1513. It was known already that the church was erected in honor of St. Bridget, who died in Rome in 1373. It was not known, however, that she died at S. Lorenzo in Panisperna, where her body was buried in a marble sarcophagus of the fourth century, and where part of her relics remained until 1892. These facts are brought out by Baron von Bildt in the *Manadsblad* of the Academy of Stockholm in 1893.—GRISAR in *Civilta Cattolica*, 1895, No. II.

BENVENUTO CELLINI.—One of the defects attributed by historians to Cellini is his lack of veracity, especially in his having laid claim to

the murder of the Bourbon. While certain proof of this deed is still lacking, other documents uphold his veracity, and five such documents preserved in the secret archives of the Vatican are now published in the *Archivio storico dell' Arte*. Cellini had written that Clement VII had made him master of the dies of the mint, which fact is recorded in document I. Another document in the same archives even substantiates his statement that he was paid six scudi a month. Farther on in his autobiography Cellini wrote that he received the office of Servant of Arms at a salary of two hundred scudi. Document III proves that this statement was also true. Finally Cellini wrote that at the instance of Latino Giovenale he received from Pope Paul III a passport of safety after the murder of Pompeo de Capitaneis. Document IV shows that this passport was given in October, 1534. That Cellini was permitted to pursue his art in safety is shown by document V, which contains an order for payment to Cellini on account of work done toward the close of 1534. These documents, therefore, render tribute to the veracity of Cellini.—FRANCESCO CERASOLI in *Archiv. stor. dell' Arte*, 1894, pp. 372–374.

ROME (NEAR).—A BYZANTINE MONUMENT AT GROTTAFERRATA.—At a meeting of the Society of Christian Archæology in Rome, the drawing was shown of a monument in the Abbey of Grottaferrata, which represents the mass according to the Greek rite of the place, the abbot being distinguished by the encolpion. The priest has before him two vases and a bread and a half on the altar, figuring perhaps the communion under the two elements. By his side an assistant holds an implement for cutting the bread. The most remarkable thing about this work is the combination of the ideal with the realistic representation, for below the eucharistic fish is carved. This piece of sculpture, until now unknown, appears to belong to the X or XI centuries.—*Bull. Arch. Crist.* S. V, *an.* IV, No. 4.

SYRACUSE.—CHRISTIAN CATACOMB.—The catacombs of S. Giovanni, the exploration of which was begun last year, have yielded in this campaign about a hundred new inscriptions, of which one bears the name of a bishop of Syracuse not hitherto known.—*Athenæum*, Sept. 8, 1894.

VENICE.—MUSEUM REORGANIZATION.—The recent celebration at Venice of the silver wedding of the King and Queen of Italy and the centenary solemnities of St. Mark has been made by the government the occasion of a reorganization of the Academy of Fine Arts and of the Archæological Museum. The work has been effected by competent men under an order from the Minister of Education, who recognized the necessity of a complete rearrangement of both collections. Old documents disclose the fact that Titian's well-known "Presentation of the Virgin in the Temple" was originally painted for the large hall of

the suppressed Scuola di S. Maria della Carità, now occupied by the Academy of Fine Arts. Hence sprang the idea of replacing this picture, which every one knows to be one of the chief attractions of the Academy, in its original position, so that the full effect intended by Titian should be obtained. This has been done. From similar motives, one of the side rooms has been remodelled so as to reproduce exactly the octagonal chapel of Saint Ursula, where formerly were Carpaccio's scenes from the legends of this saint. Paintings by Bellini, Sebastiani and others, removed hither from the Scuola di S. Giovanni Evangelista, have likewise been placed in positions corresponding as nearly as possible to the original. The contents of the Archæological Museum had been in even worse disorder than the Art Gallery, so that a large part of the collection had been wholly withdrawn from exhibition. To Dr. Lucio Mariani, of Rome, was given the task of bringing a scientific classification out of this chaos. The new arrangement has led to the opening of five additional rooms in the Ducal Palace, which have hitherto been closed to the public. The decorations of the walls and ceilings, as well as the fine chimney-pieces, add to the interest of these rooms. Both the entrance and the exit to the Ducal Palace are now, in consequence of these changes, by the Scala d'Oro, which increases the impressiveness of a passage through these rooms. A branch of the Scala d'Oro, ornamented by remarkable stuccoes, is also now opened to the public for the first time. The action of the government in making its contribution to the Venetian festivities one of permanent interest will be appreciated by future visitors.—*N. Y. Nation*, May 30, 1895.

SICILY.

MARSALA-LILYBÆUM — INSCRIPTION OF SEXTUS POMPEIUS.—At Marsala, amongst the slabs of an ancient pavement, an inscription has come to light which is of considerable historical interest, as it records the celebrated triumvir Sextus Pompeius and his legate L. Plinius Rufus. It is to be remarked that this is the first time that we learn the legate's correct name, which had hitherto been handed down by authors in a mistaken form, as also his full titles. The inscription refers to the works of the port and towers of Lilybæum. Prof. Salinas is now occupied in excavating the Carthaginian walls of the city.—HALBHERR, in *Athenæum*, March 23.

The inscription has been purchased for the Museum of Palermo. It reads:

MAG · POMPEIO MAG F·PIO IMP·AVGVRE
COS · DESIG PORtuM · ET TVRRES
L·PLINIVS·L·F RVFVS·LEG·PRO·PR·PR·DES·F·C·

It is the only record yet found of Sextus Pompeius' absolute rule on the island during seven years, from 43 to 36 B. C., and as it gives him the title of Augur, it must be after 39 B. C.—*Not. d. Scavi*, 1894, pp. 388-391.

NETUM.—The identification of the Siculo-Greek town of Netum with Noto Vecchio, destroyed by the earthquake of 1693, has been heretofore founded solely upon a rock-cut inscription of this locality. I have recently discovered in the neighborhood of this rock two other pure Greek monuments, Heroa in the form of large rock-cut rooms. The walls contain sanctuary niches, some of which preserve still the remains of sculptures and inscriptions, unfortunately in bad condition. These Heroa of Netum recall two others almost unknown, in the adjoining town of Akrai, provided with numerous niches and with inscriptions of the same character.—ORSI, in *Bull. Corr. Hell.*, Aug.-Oct., 1894.

SELINOUS.—An article in the *Cologne Gazette* gives an account of the excavations during the last few years at Selinous. Little by little the Acropolis is being uncovered. Its general plan is already evident. There are two main streets crossing one another at right angles; the sites of five temples have been identified, one dedicated to Apollo, another to Aphrodite; the circuit of the wall, with its two large gates and its four towers to them, two circular and two square, have been determined. These latter constructions, in Pelasgic style, doubtless belong to the very earliest period of the Italic races. The Greeks, coming later, erected the temples. Here and there a large number of terracotta objects have been found. In a single chamber near the Propylæa 1200, and near by, in the foundation of the temple, 11,089 were found. Their workmanship is in general crude. Figurines have also been found by thousands, of extremely variable artistic value, some of them very beautiful and others very poor. In certain cases there remain traces of color. Among others is an admirable female head, with the face painted white and the hair red.—*Chronique*, 1895, Nos. 1 and 6.

Professor Halbherr reports: "At Selinunte, where excavations have been conducted for some time with considerable success, during the past year a large building has been disinterred, of peculiar form, situated beyond the Selinus and above the propylæa. Although without peristyle, it possesses all the other characteristics of a temple, and the votive objects found at the same time confirm this judgment. These latter consist of an enormous heap of terracottas, bronzes, and fragments of glass. Of lamps alone more than ten thousand have been collected. Amongst the archaic *figurini* many are remarkable for the valuable traces of painting they preserve. The report now presented

by Prof. Salinas, of Palermo, embraces all the work done at Selinunte from the outset, of which hitherto only the discovery of the famous metopes in 1892 had been made public. A large portion of the splendid northern wall of the acropolis and of the fortifications constructed in 409 B. C., by Hermocrates of Syracuse, as also some important remains of an earlier period, are now laid bare. The thicket which covered the western wall has been cleared away, and the whole extent of the diggings on the acropolis having been thus brought to view, an accurate plan has been made of the whole by Signor Rao. Amongst late discoveries must be mentioned a head in Greek marble, somewhat injured, attributed to the fifth century B. C., and resembling in some particulars the head of Zeus on a well-known Selinuntine metope; an archaic inscription bearing a dedication to Demeter, with the epithet Malophoros; a number of terracotta *figurini* of archaic epoch and orientalizing style; and several fragments of terracotta reliefs, some of which belong to the rim of a kind of *perirrhanterion*, 68 centimètres in diameter, having a representation of the Nereids carrying the arms of Achilles. The latest discovery of all is that of a hoard of several hundred Campanian coins perfectly preserved, having on one side the head of Janus bifrons, and on the other Jupiter in the quadriga.—HALBHERR in *Athenæum*, March 20.

SYRACUSE.—The continuation of the excavations in the large Greek necropolis, called Del Fusco, have this time proved even more fruitful in results. About 450 tombs have been excavated, which are for the most part amongst the most ancient in Syracuse. There are monolithic sarcophagi, graves rigorously oriented, cinerary urns and amphorae for the rite of incineration. The prevailing use is that of burial, but incineration exists at the same time. Certain vases were used to preserve the bones: they are in shape a prototype of the amphorae with colonettes and decorated with paintings of the primitive geometrical style, with some elements which recall the Dipylon. Other urns contain the bodies of infants not burned, besides sculptures. In the sarcophagi and outside there have been gathered a number of terracotta vases representing different phases of Corinthian pottery of proto-Corinthian style. Geometric zoomorphic and Corinthian black-figured vases occur exceptionally. In silver, there were found, earrings, rings, mounted scarabs, lentoid pearls; in bronze, fibulae "a navicella," "a bastoncini," and "a cavalluccio"—types not yet observed in Archaic Greek burials. Another novelty consists of fibulae of iron, the bow of which is covered with ivory or amber. Several scarabs of glass paste were found. The tombs which have been explored belong to the end of the eighth century and first half of the seventh, and occupy a comparatively narrow space. Some have been destroyed,

others merely carried away by barbarians, who, several centuries after Christ, opened narrow trenches near or in the midst of the Greek burials. Every indication of the origin of these robberies is lacking.—ORSI in *Bull. Corr. Hell.*, Aug.–Oct., 1894.

THAPSOS.—The modern Magnassi possesses a large Sicilian necropolis with beautiful tombs cut in the rock in the form of little *tholoi*. It has been to a great measure ransacked at a remote period by searchers for metal. Nevertheless, I have made finds very important for history and archæology. The necropolis, which belongs to the second Siculan period, contemporary with the Mycenæan civilization, shows the first attempts at architectural decoration of the façades of the tombs. Vases of local make are in forms of every variety. One novelty seems to have been the attempt to reproduce the forms of animals in the Siculan vases. One finds Siculan amphorae for the most part of small dimensions. Of Mycenæan character are also some swords and daggers of bronze. Various objects in glass paste may be considered to be Phœnician imported objects, like the Mycenæan ware. Although Thapsos has been considered by modern historians as a Phœnician settlement in Sicily, no traces of Phœnician tombs have been found there.—ORSI in *Bull. Corr. Hell.*, August–October, 1894.

FRANCE.

SCULPTURE IN EUROPE BEFORE GRÆCO-ROMAN INFLUENCE.—Under the above study M. Salomon Reinach commenced in *L'Anthropologie* for 1894 a series of articles which, when completed, will be a systematic review of the development of sculpture in a field hitherto omitted from the histories. We will give an extended review of this study when it is completed. Thus far three papers have appeared. M. Reinach thus announces his scheme: "The general histories of ancient plastic art mentions more or less briefly the sculptures and engravings of the reindeer period; then passes to the eastern basin of the Mediterranean to establish there for tens of centuries its observatory, returning to the west only with the Etruscans and the Roman legions, to note there works of decadence derived from those made familiar to it in the Oriental world, at Athens, Ephesos, Pergamon and Alexandria.

"I have here attempted to investigate a domain that history has omitted, to compare and classify the first attempts of native European plastic art. . . . The materials I have gathered and used for this purpose are primitive sculptures in stone, terracotta and metal. The latter are especially numerous. Dispersed in museums under more or less vague names, such as Celtic, Etruscan, Gallo-Roman or Barbarian, they are far from having all been published or even described."

But one serious effort has been made to call attention to them: this was by M. R. Forrer in a series of articles entitled *Primitive Menschliche Statuetten aus Bronze*, published in the review *Antiqua* (1887–1890). M. Reinach studies only figured sculpture, because the study of decorative work of this style is far more advanced. Neither does he go so far back as the "quaternary," or cave period. In regard to the method followed in his study, M. Reinach shows how impossible any chronological and how inconvenient any geographical arrangement would be; he therefore proceeds by the study of types and their various ramifications, taking, as far as possible, his point of departure among the monuments discovered in the western part of Europe, and using such places as Troy, Kypros, Mykenai, Olympia, merely for comparison, and abstaining altogether from illustrating types found entirely in Eastern Europe. He lays especially stress upon the monuments of pre-Roman Gaul, even when they cannot be classified under any international series of types.

ORIGIN OF GALLO-ROMAN ART.—M. Salomon Reinach believes that the origin of Gallo-Roman art should be sought in Egypt of the Ptolemaic period, and, more specifically, at Alexandria, which was in commercial relationship with Marseilles, Narbonne and Nîmes. It can hardly be doubted that from this source came the finest pieces of goldsmithswork of the treasures of Bernay and Hildesheim. The monuments of Orange, of Saint-Remy and Igel, were constructed and decorated by a school of Alexandrian artists.—Communication to the *Acad. des Inscr.* in *Revue Arch.*, 1894, I, 110.

CHARTRES. — EXCAVATIONS UNDER THE CATHEDRAL. — The excavations undertaken mainly for practical purposes under the pavement and among the foundations of the Cathedral of Chartres are the most extensive ever made, and gave results of considerable interest for the history of the site. A popular account of them is given in the *Semaine Religieuse de Chartres*, and is reproduced in the *Revue de l'Art Chrétien*, 1894.

HARFLEUR.—DISCOVERY OF A GALLO-ROMAN TEMPLE.—M. Albert Naef has conducted excavations above Harfleur, at a site on which there stood a small Gallo-Roman temple. There came to light a quadrangular ædicula surrounded by a colonnade, and also a number of sculptured objects.—*Revue Archéologique*, 1894, I, 113.

This note in the *Revue* is supplemented by M. Naef's own report in the *Ami des Monuments*, 1894, p. 147. The excavations were begun June 27, 1893, and finished in August. They covered an area of 400 square metres. The small temple is on the top of a hill, and consists of two square enclosures, almost exactly oriented to the cardinal points, the small square cella in the centre, and the peripteral colon-

nade 13 metres per side, of which, however, only one side has been ascertained surely to exist. Although extremely ruined, enough remains to show that both the exterior and interior of the cella had a polychromatic decoration—both walls and ceiling. The most curious and rare object found is a small tripod, the like of which had not been found in the province. It is ingeniously constructed so as to be let up or down according to the diameter of the vase it was to support.

A coin of Valentinian found on the very remains of the demolished walls, gives perhaps the approximate date of the destruction of the cella, c. 366–75 A. D.

OISSEAU.—DISCOVERY OF A GALLO-ROMAN CITY.—Some important excavations have been undertaken at Oisseau (Sarthe) by M. F. Liger. The town is 9 kilom. south of Alençon. The discoverer recognized in the numerous ruins scattered over the territory of Oisseau, the vestiges of a Gallic city destroyed at the close of the third or the beginning of the fourth century. The buildings still remaining, such as temples, circus, aqueduct and constructions of all sorts, are scattered over a surface of over a hundred hectares, including the remains of a Gallic *oppidum*. Was this the ancient Vatigorum of Ptolemy, or Nudiodum? Certain it is that here we have a Gallic settlement to which the Romans added a city. Among the buildings brought to light several are of considerable size. One, whose use is still unknown, is fully 75 met. long. The theatre, with all of its substructures still intact, has a diameter of 55 metres.—*Ami des Monuments*, 1894, p. 23.

LOUVRE.—EARLY CHRISTIAN VASE.—A large silver vase, adorned with Christian subjects in relief and coming from Homs, the ancient Emesa, in Syria, was offered to the Louvre in 1892. There was a wide difference of opinion in regard to its date, the V, the VI and the X centuries being among those proposed. A cast was sent to Comm. G. B. de Rossi, in Rome, who, after speaking of the importance and rarity of the work, said: "It is impossible to doubt that this is a work anterior to the Byzantine period. The technique of the *repoussé* work, the classic style and the Christian iconography, all agree in placing it in the fifth rather than the sixth century. The very lack of the nimbus around the Saviour's head, a comparison of this vase with the *capsulae*, silver boxes and burettes of the fifth century, the gold bracelets of Aquileia, are so many indications of this date. . . . The four apostles by the side of Christ are easy to identify by their iconographic characteristics: Peter and Paul, John (beardless), James, the cousin of our Lord, whom he is made to resemble, a Nazarine with long hair. The Virgin is surrounded by angels.—*Bull. Soc. des Antiq.*, 1893, p. 84.

ITALO-BYZANTINE IVORY.—An ivory at least as early as the sixth century has been purchased. It appears to have formed part of the decoration

of a throne like that of Bishop Maximianus, at Ravenna. This relief represents a crowd of people listening to the preaching of an apostle whose type is the usual one given in early monuments to St. Paul. In the background is a city built in Roman style: at the windows and balconies of all the buildings stand numerous figures. M. Saglio, who presented a notice of this work to the *Soc. des Antiquaires*, believes it to have been executed, not at Byzantium, as might be thought from the costumes, but in Italy.—*Bull. Soc. des Antiquaires*, 1893, 127.

BIBLIOTHÈQUE NATIONALE.—The Bibliothèque Nationale has recently acquired a collection of primitive Greek coins in electrum, which were found together in the island of Samos. According to M. Ernest Babelon, their date cannot be later than the middle of the seventh century B. C., and they are thus among the very earliest examples of coined money. They bear various devices—the head of a lion, a flying eagle, an eagle devouring a hare, a rose, a ram lying down, etc. They are all struck, with mathematic precision, from staters to obols, according to the Euboic standard of 17.52 grammes to the stater. M. Babelon therefore infers that the so-called Euboic standard must have originated in Samos, whence it was imported to Euboia, and afterwards spread throughout the Greek world.—*Academy*, June 30.

PONT-AUDEMER.—VANDALISM.—The Church of Nôtre-Dame-du Pré, at Pont-Audemer, was a charming monument of the XII century, in fair preservation. It was sold in 1892, and the new owner has removed the roof, scratched the walls, columns and capitals, and removed some of the capitals and the greater part of the remarkable carved corbels.—*Bibl. École des Chartes*, 1893, pp. 790–1.

SPAIN AND PORTUGAL.

FRENCH ORIGIN OF GOTHIC ARCHITECTURE IN SPAIN AND PORTUGAL.—At the late congress of the Sarbonne, M. Enlart read a paper on the French origin of Gothic architecture in Spain and Portugal. Its principal agents were the monks of Cluny and Citeaux and the numerous bishops of French origin. Cluny gained possession in the XII century, of all the Spanish churches and Citeaux of the Portuguese. The school of Cluny is eclectic, borrowing from Auvergne (Cath. Compostella), Aquitaine (S. Isidore, Leon) and Burgundy (Camprodon, Cath. of Siguenza and Lugo, nave of S. Vincent, Avila). The Cistercians follow the style of Aquitaine even more than that of Burgundy, combining both in such churches as Veruela (1146), Poblet (1153), Santas Creus (1157) and Val de Dios (cons. 1258): the latter not having even the Cistercian plan. At Alcobaza, in Portugal, they imitate both the plan of Clairvaux and the Gothic architecture of Poitou

and Anjou. Under their influence the cloister of the Cath. of Tarragona is built in imitation of that of Fontfroide and Valmague. The priests and bishops from the S. W. of France, who built the cathedrals of Zamora (cons. 1174) and Salamanca (do.), and the Coll. Ch. of Toro (do. and XIII cent.), which have the domical cross-vaults and the conical towers like those of the churches of Perigueux, Saintes and Poitiers.

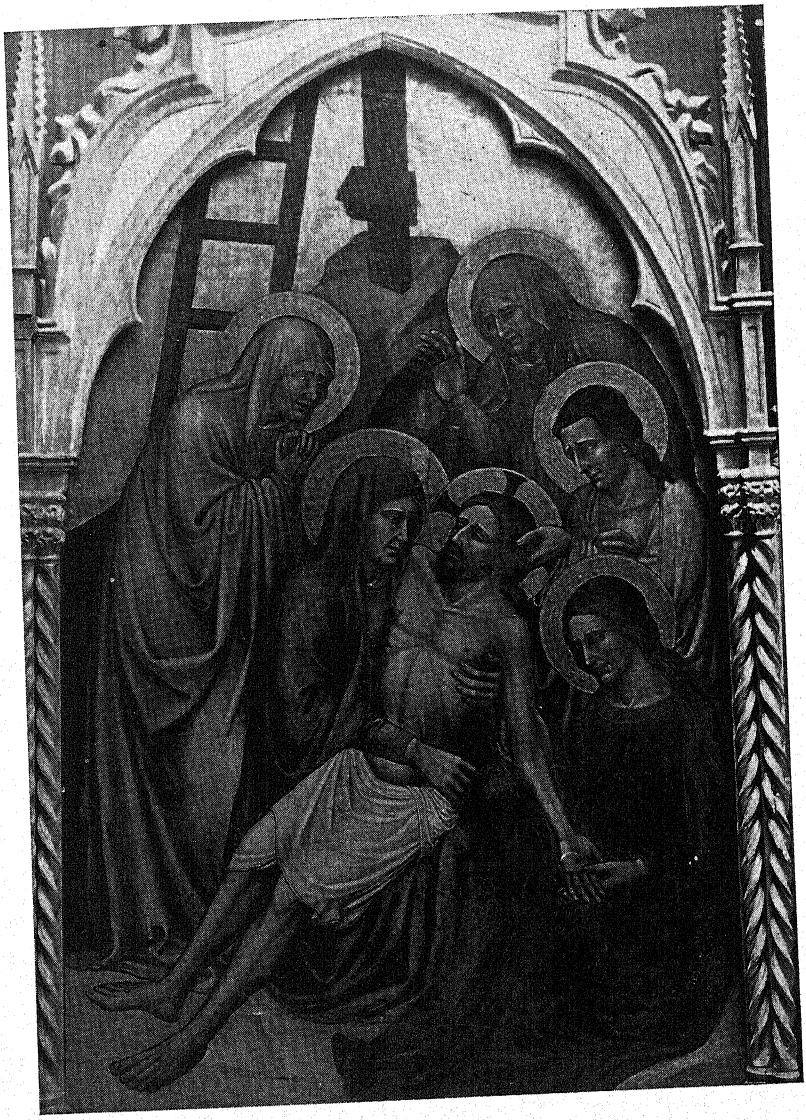
All these monuments are followed by others of greater importance and more perfect Gothic style; such as the cathedrals of Burgos (cons. 1230), Toledo (beg. 1229) and Leon (fin. c. 1300). The first two closely imitate Bourges, and the third belongs to the same perfected and pure style as the cath. of Beauvais, the chapel of S. Germain-en-Laye and S. Urbain of Troyes. Its west porch is an exact copy of the side porches of the cathedral of Chartres, and its statuary resembles that of Rheims.

In Catalonia the Gothic style continues to follow, in the XIV cent. that of Languedoc, witness the cathedrals of Girona and Manresa, and the church of Lamourguie.—*L'Ami des Monuments*, 1894, p. 145.

SPAIN.

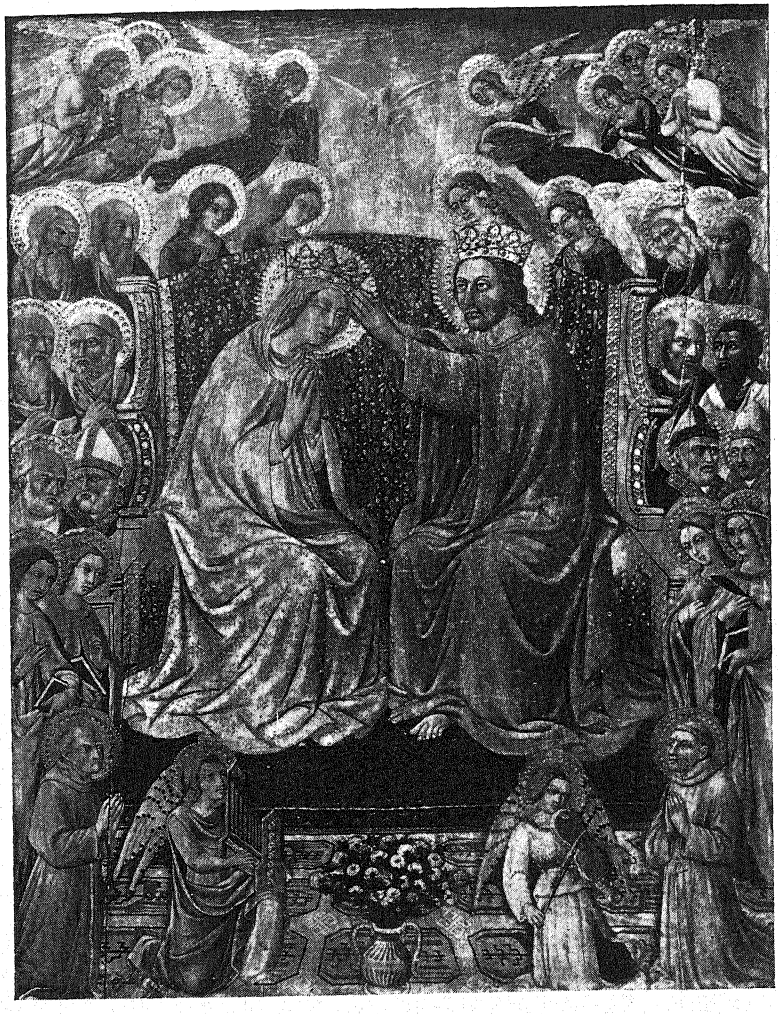
VICH.—A NEW MUSEUM.—In 1889 a museum was founded at Vich by its bishop, Mgr. Don Josè Morgades y Gili, and in 1891 it was inaugurated. The first volume of its catalogue, together with a series of photographs of the principal pieces in the museum, was presented on June 3, at a meeting of the Society of Christian Archæology in Rome. Among the objects should be mentioned especially: the paintings on wood of the Romanesque school of the X, XI and XII centuries, and those of the Gothic school between the XIII and XVI centuries; the early crucifixes in wood and bronze called Majestats in Catalonia; various sculptures representing the Virgin, executed between the X and XVI centuries; the collection of oriental stuffs, especially the two famous pieces known under the names of *pali de les Brinxes* (or chimerl), and *Sudari de Sant Bernart* (who was Bishop of Vich in the XIII century). The Rev. S. Pedro Bofill y Boix, who presented both catalogue and photographs, spoke also of the restorations carried on by the bishop of Vich in the basilica S. Maria de Ripoli, and called attention to the great importance of the monument, which is called *Triumphal Arch of Christianity* in Catalonia.—MARUCCHI, in *Bull. di Arch. Christ.*, S. V, *an.* IV, No. 4.

A. L. FROTHINGHAM, JR.
ALLAN MARQUAND.



DEPOSITION FROM THE CROSS

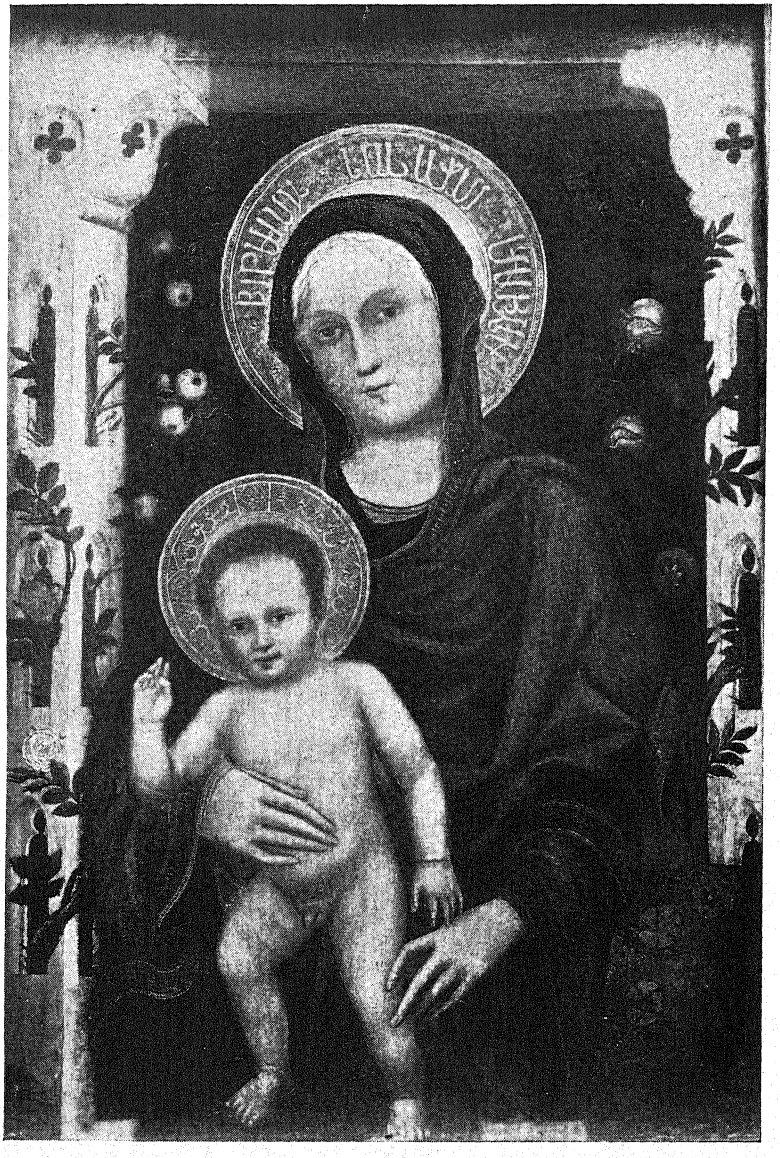
By Antonio Veneziano.



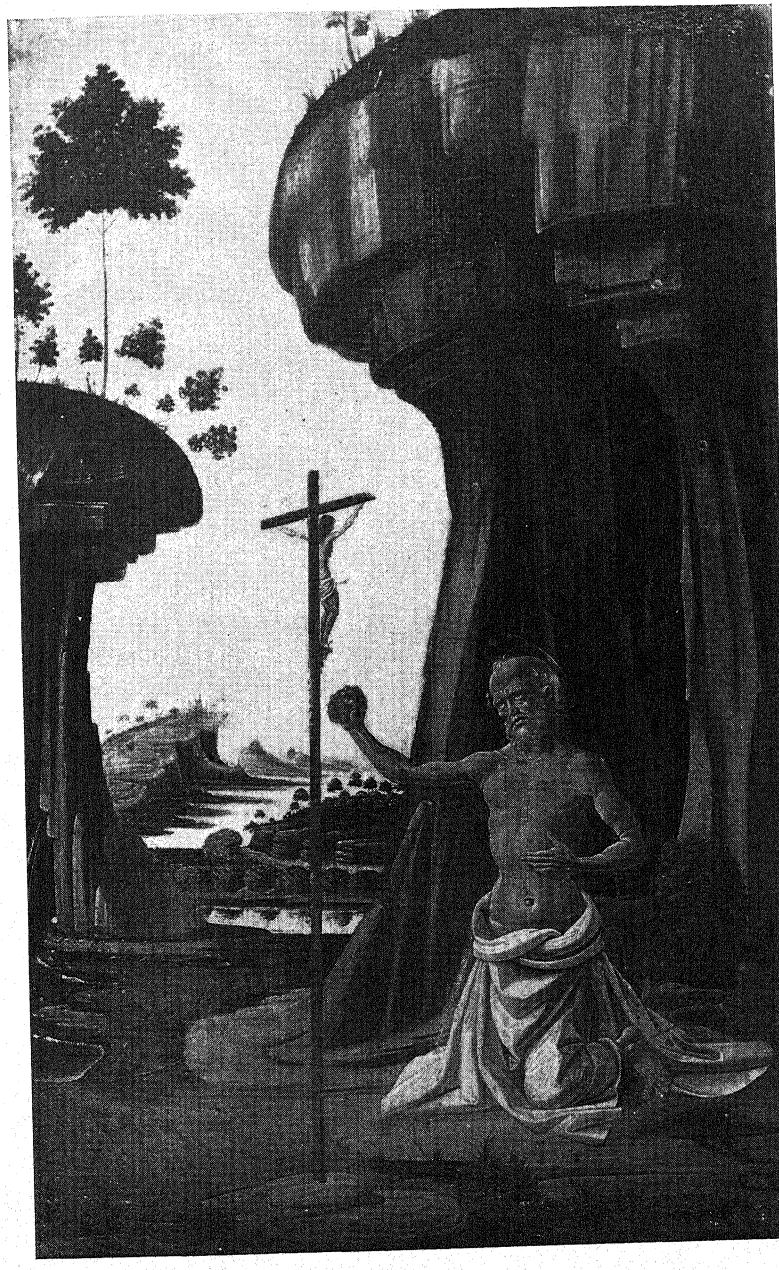
CORONATION OF THE VIRGIN
By Sano di Pietro.



MADONNA, CHILD AND TWO ANGELS.
BY MATTEO DI GIOVANNI.



VIRGIN AND CHILD
By Gentile da Fabriano.



THE PENITENCE OF S. JEROME

By Fiorenzo di Lorenzo.

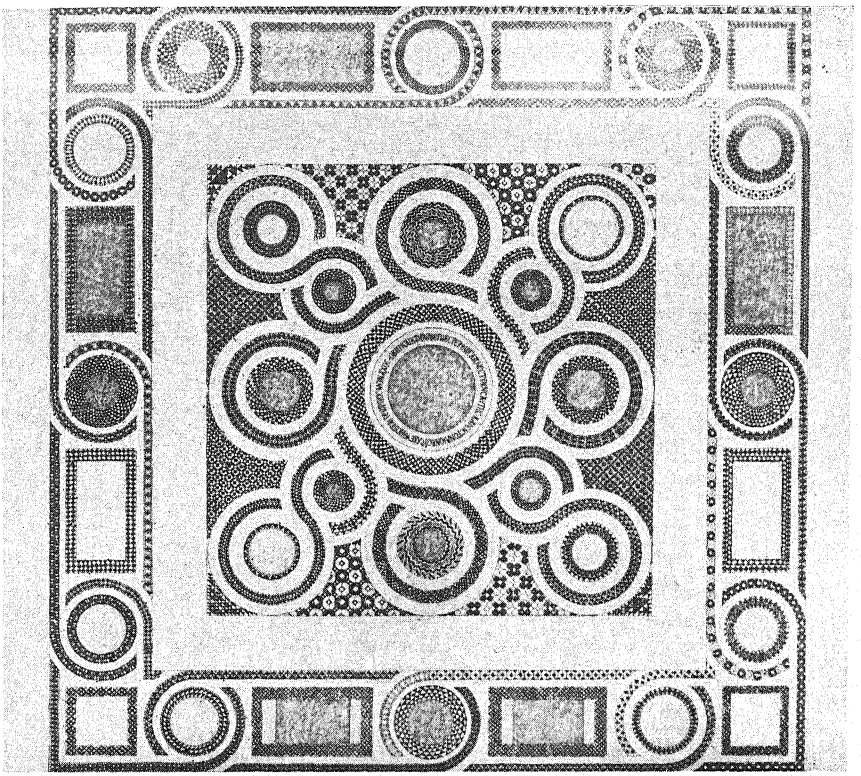


LOVE BOUND BY MAIDENS

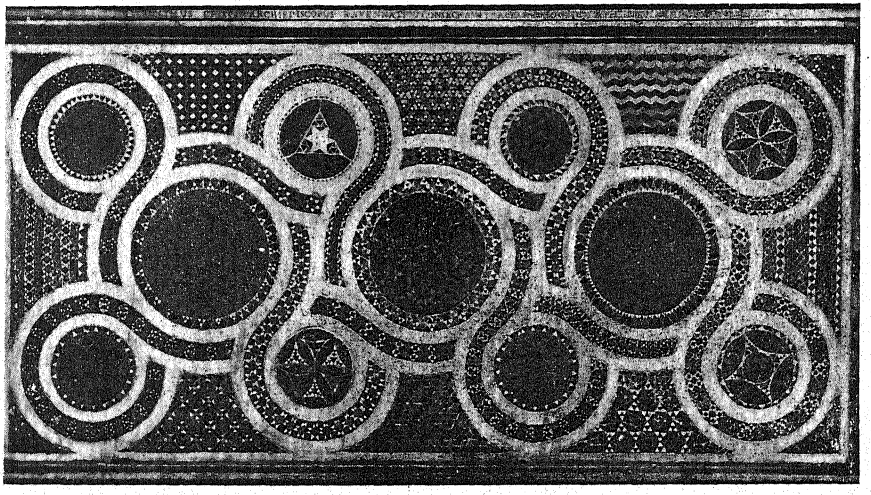
Florentine School (?). Salver of the XV Century.



VIRGIN AND CHILD WITH SAINTS, BY RIDOLFO GHIRLANDAJO.



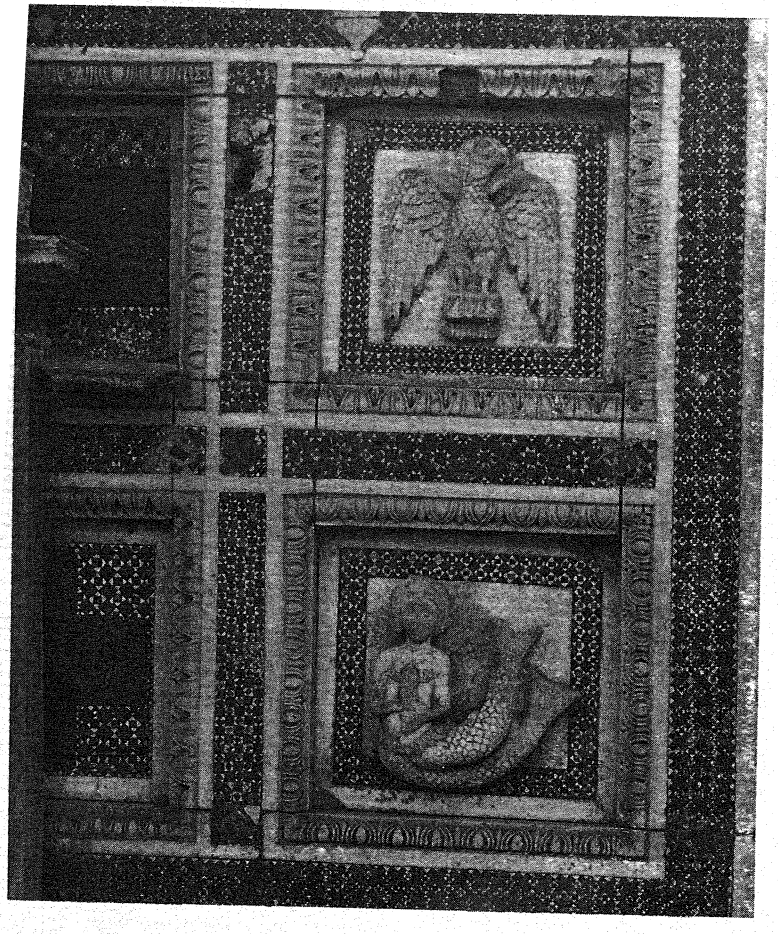
I.

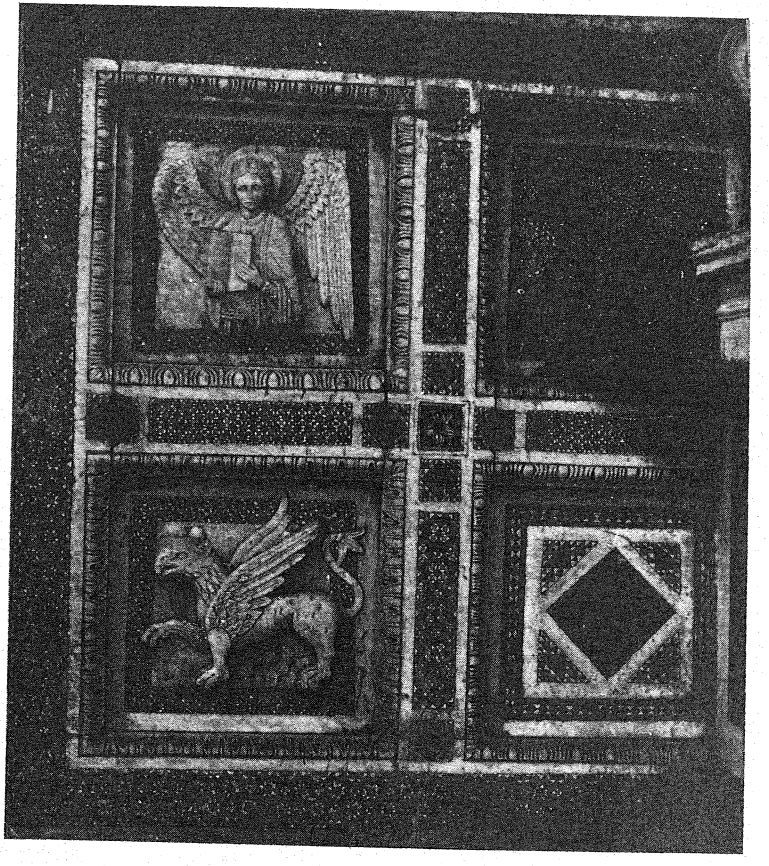


II.

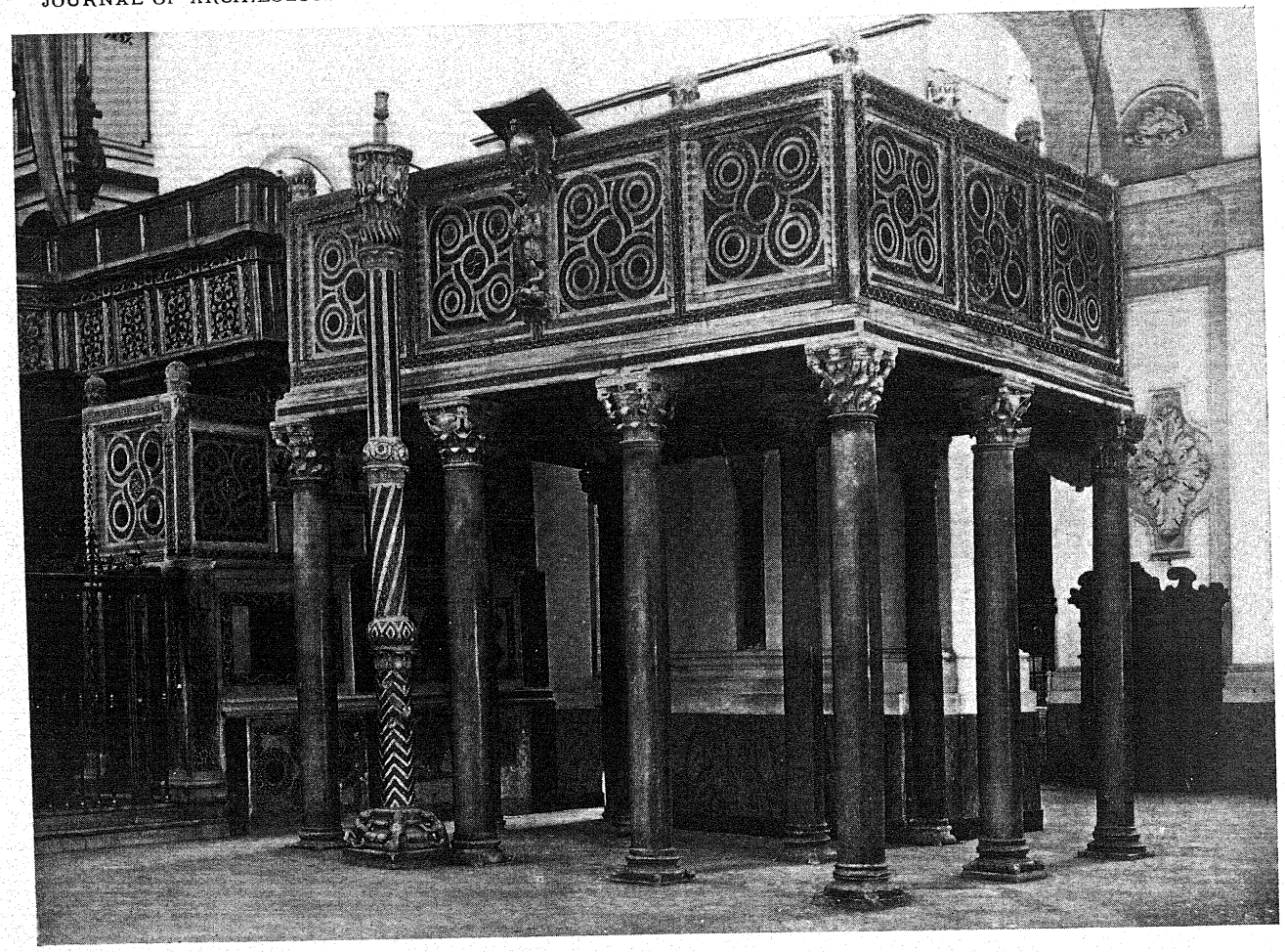
I. MOSAIC PAVEMENT AT IVIRON, MT. ATHOS.
(c. 976 A. D.)

II. MOSAIC SLAB AT S. PRASSEDE, ROME.

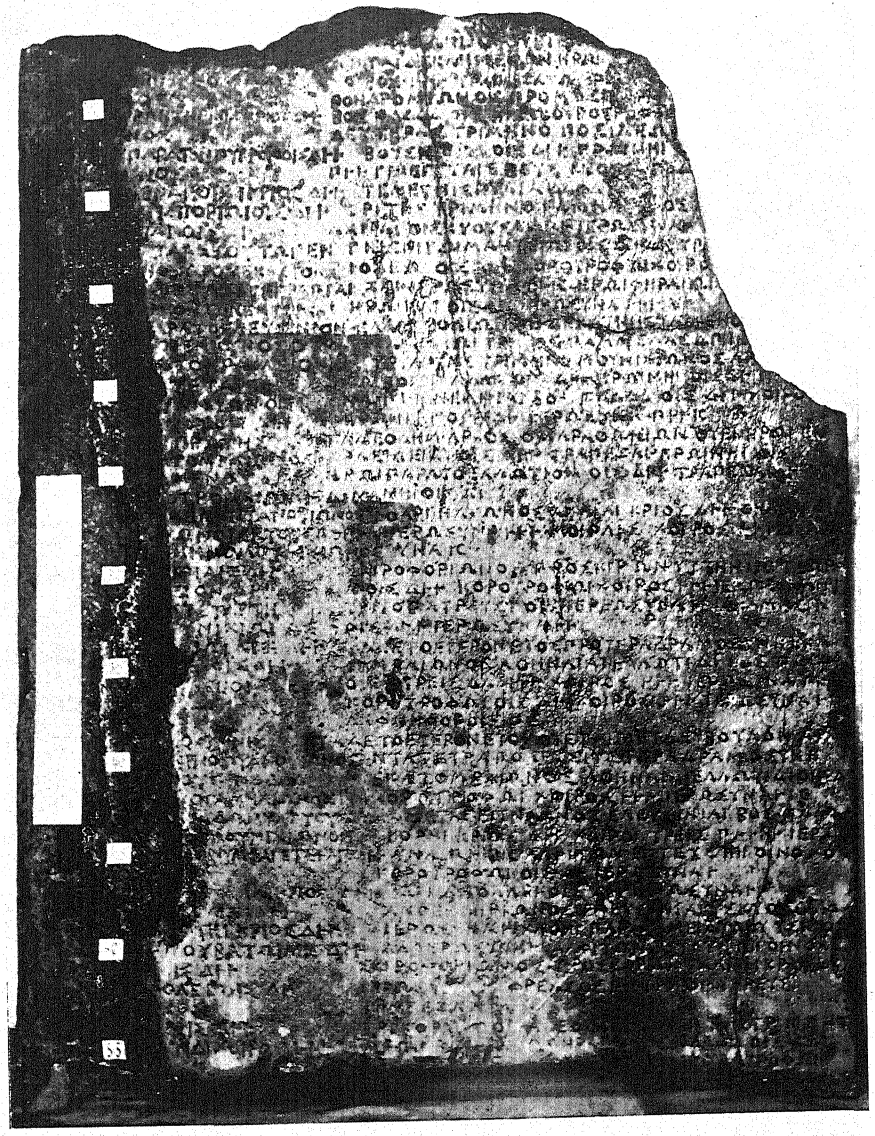




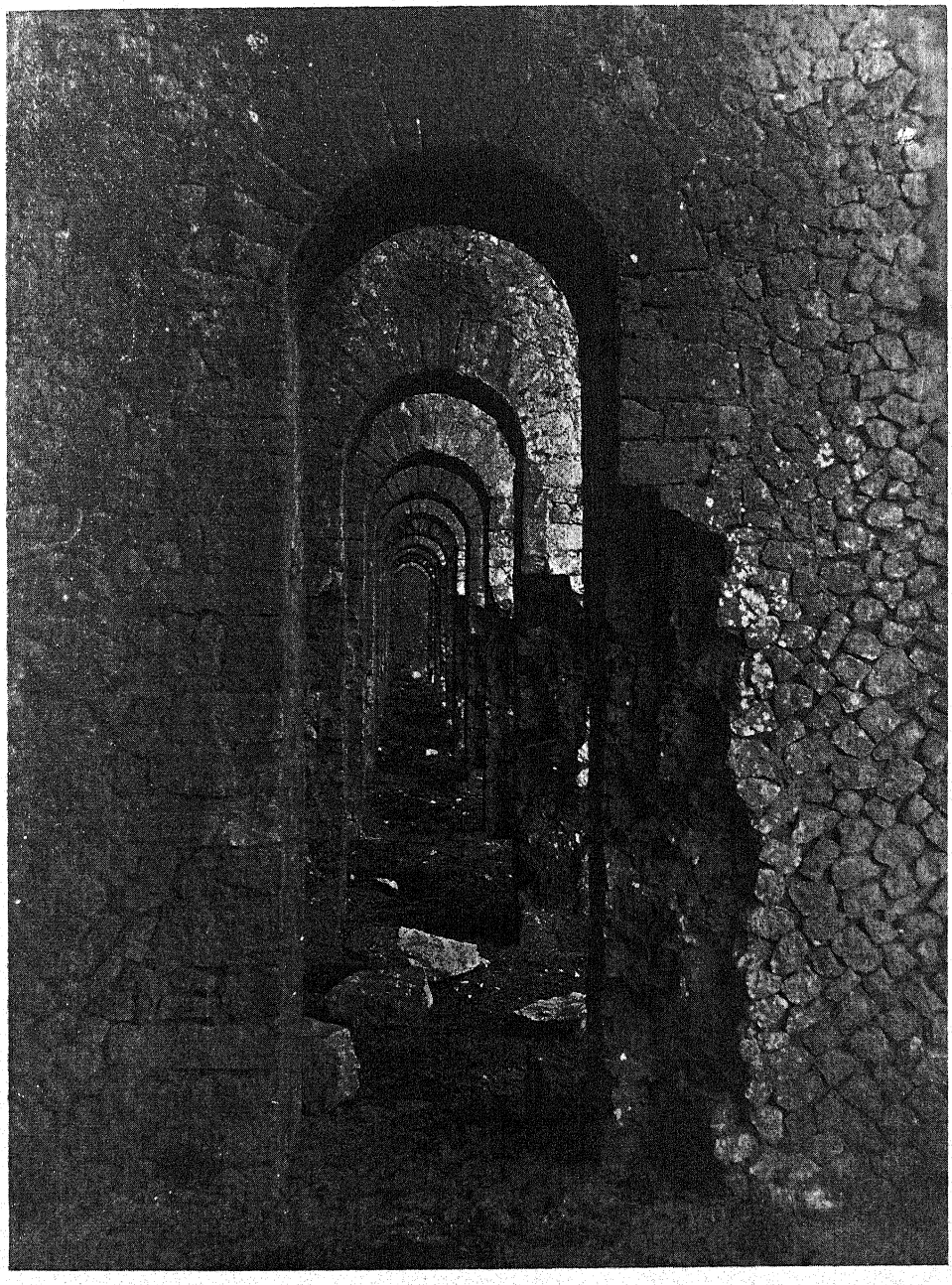
BYZANTINE MARBLE PARAPET INLAID WITH MOSAIC (c. 1,000 A. D.) IN S. LUCIA, GAETA.



LARGER PULPIT AND PASCHAL CANDLESTICK IN CATHEDRAL, SALERNO.
(XIII Century)



A SACRIFICIAL CALENDAR FROM THE ATTIC EPAKRIA.



FACE OF SUBSTRUCTURES, TEMPLE OF JUPITER AUXUR. TERRACINA.

View through interior.

AMERICAN
JOURNAL OF ARCHÆOLOGY.

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PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.

THE CHORUS IN THE LATER GREEK DRAMA WITH REFERENCE TO THE STAGE QUESTION.

The chorus in the Greek Drama, its position and external functions, has formed the basis of the investigations[1] in the last decade that have contributed in no small degree to the overthrow of the traditional belief in a high stage for actors during the classical period. Those who at first opposed the entire theory of Dr. Dörpfeld now concede, almost without exception, that the theatre of the fifth century placed no restraint upon the free and constant intermingling of actors and chorus.[2] But the question

[1] HÖPKEN, *de theatro attico*, Diss. Bonn, 1884; WILAMOWITZ, in *Hermes*, 21, 607 ff.; WHITE, in *Harvard Studies*, 1891, 159 ff.; CAPPS, in *Trans. Am. Phil. Ass.*, 1891, 1 ff.; BODENSTEINER, in *Jahrb. f. class. Phil.*, 19ten *Suppl.*, 1893, 639 ff.; PICKARD, in *Am. Jour. Phil.*, 1893, 68 ff.; WEISSMANN, *Die scenische Aufführung der griech. Dramen*, München, 1893; WECKLEIN, *Sitzungsber. d. bayr. Akad.*, 1893, 1429 ff.

[2] The suggestion of a low stage for the fifth century first came from HAIGH, *Attic Theatre* (1889), 158, and has since found favor with many, either in its original or in a modified form. See GARDNER, in *Jour. Hell. Stud., Suppl. I.*, (1892); WEIL, in *Jour. des Sav.*, 1893, 603; CHRIST, in *Sitzungsber. d. bayr. Akad.*, 1894, 1 ff.; OEHMICHEN, in *Woch. f. klass. Phil.*, 1894, 761; A. MÜLLER, in *Berl. phil. Woch.*, 1894, 1456; Navarre, *Dionysos*, p. 95. For the view of Christ, who at first favored the new theory, see *Class. Rev.*, 1895, 133. Other compromises have been offered by DYER, in *Jour. Hell. Stud.*, 1891, 356 ff., EARLE, *Report of Arch. Inst. of Am.*, 1892-3, 611, and in the Introduction to his edition of the *Alcestis*, and PAULSEN, *Grekiska teatern*, Goteborg, 1894.

has by no means reached its solution. Vitruvius remains, and, until fresh evidence has been gathered from literary sources which shall conclusively refute or explain him, he will probably continue to remain, the stronghold of many who have not felt the overwhelming force of the evidence of the ruins.

The theories formulated by Mr. Gardner and Prof. Christ rest upon the assumption that at about the beginning of the third century, without any assignable reasons, the low stage was replaced by the high Vitruvian stage. This is the time of the first appearance of stone proscenia. From this time on there can be no compromise; the actors stood either upon the proscenium or in the orchestra in front of it, where, according to Dr. Dörpfeld, they always stood.[3] If, from 300 B. C. on, the actors stood upon the proscenium, then the chorus must either have entirely disappeared from the drama or have essentially changed its character before the reconstruction of the theatre was possible, *i. e.*, during the fourth century.

Our knowledge of the later Greek drama is extremely meagre. The current histories of Greek literature are full of all manner of vague statements as regards the history and character of the chorus after the fifth century. The prevailing view seems to be that both tragedy and comedy underwent a sudden change shortly after the Peloponnesian war, and that a throng of worthless or distinctly inferior poets succeeded the old masters; as for the chorus, that in tragedy it rapidly waned during the fourth century, soon became a mere appendage and at last disappeared, while in comedy it did not long outlive the Peloponnesian war. It is not surprising, therefore, that, in the discussion of the stage question, it has become the custom of the conservative party to ignore the chorus altogether after the fourth century. But not even the meagreness of our positive knowledge warrants the assertion of Haigh (*A. T.* 261), that "in the course of the fourth century the tragic chorus came to occupy the position of a band in modern times," and of Gardner (*Excav. at Megal.*, p. 157), that "it is only in the plays of the fifth century that there was

[3] Mr. Gardner's theory, on the other hand, involves the following changes: V cent., a low stage; IV cent., a stage of *ca.* 4 ft.; III cent., a stage of 10 ft., gradually increasing to 12 ft.; I cent., a stage of 5 ft. (Roman). He considers, however, that the Roman theatre (the drama also?) was an independent growth.

any close connection and intercourse between actors and chorus, orchestra and stage. In the fourth century the chorus disappeared almost entirely from comedy, and in tragedy its functions came to be confined to the duty of merely singing interludes,"[4] and similar statements in Christ's last article.[5] Müller's paragraph on the subject (B-A. 341 ff.) and the introductory chapter of Ribbeck's *Geschichte der römischen Tragödie* should have prevented such sweeping assertions. But neither Müller nor Ribbeck, nor, so far as I know, any other scholar, has submitted the subject of the character and functions of the later Greek chorus to a thorough investigation.[6] It is my purpose in this paper to bring together the evidence as to the later history of the chorus, and to determine, as far as possible, how it differed in character from that of the fifth century.

THE CHORUS IN THE LATER TRAGEDY.

Side by side with the formal exhibitions of tragedy at the great religious festivals, existed another kind of histrionic performance that was dignified by the name of tragedy—the exhibitions of wandering troups at the country fairs and in the market-places of the cities. They were of an informal, doubtless extemporaneous character, and probably dispensed with choruses as well as with extensive scenic apparatus (*cf.* Plat. *Legg.* 7, 817 c). Leaving these out of account, there is no evidence that Greek tragedy ever gave up its chorus; on the other hand the literature and inscriptions contain many references to the tragic chorus at Athens and elsewhere down to a very late period. It will suffice to mention Lys. 19, 29 and 21, 1; Isaeus, *de Dic. her.* 36, *de Phil. her.* 60; Dem. *Mid.* 58 and 156; Arist. *Pol.* 3, 3, 1276 b, 4, *Prob.* 19, 48, 'Αθ. Πολ. 56, 3; Democharcs *apud.* Vit. Aeschinis II; Plut. *Script. Mor.* 68 A, 599 B; Max. Tyr. *Diss.* 7, 1; *CIA* II,

[4] This seems to rest on Haigh's authority alone. See *Att. Theat.*, 157. Oehmichen (B-W., 197), evidently takes the same position.

[5] See pp. 26 f., 31, and *passim.*

[6] WELCKER, *Die griechische Tragödien*, pp. 899, 1276, 1319 ff., discusses the existence of the tragic chorus. The history, but not the character, of the chorus in tragedy and in comedy after the fifth century is discussed with admirable judgment by Magnin in his *Les Origines du Théatre Attique*, Paris, 1868, p. 129 ff. But his views now require revision in some important particulars.

1277, 1289, III, 68*b*. For Delos, Arist. 'Αθ. Πολ. 56, 3; *Bull. Corr. Hell.* 7, 122 ff; Iasos, La Bas, *As. Min.*, *no.* 281; Thespiae, *CIG* 1585; Rhamnus, 'Εφ. 'Αρχ. 1891, 49 (*ca.* 300 B. C.); Samos, *CIG* 3091 (170-60 B. C.); Teos, *CIG* 3089; Rhodes, Loewy, *Arch. Epig. Mitth.* 7, 111 (after fourth century).[7] In addition to these inscriptions, which mention the tragic choregia, are many other references to the tragic *agon*, in which the tragic chorus undoubtedly took its part along with the cyclic choruses. See Welcker, *Die griechische Tragödien*, p. 1295.

As to the character of the later tragic chorus, the opinion prevails that it had lost its former intimate connection with the action, and that its only function was to entertain the audience between the episodes. This opinion is based wholly on the much-discussed passage in Aristotle's *Poetics* (18, 1456 A, 26): *καὶ τὸν χορὸν δὲ ἕνα δεῖ ὑπολαβεῖν τῶν ὑποκριτῶν καὶ μόριον εἶναι τοῦ ὅλου καὶ συναγωνίζεσθαι μὴ ὥσπερ Εὐριπίδῃ ἀλλ' ὥσπερ Σοφοκλεῖ· τοῖς δὲ λοιποῖς τὰ ᾄδόμενα οὐδὲν μᾶλλον τοῦ μύθου ἢ ἄλλης τραγῳδίας ἐστίν. διὸ ἐμβόλιμα ᾄδουσιν πρώτου ἄρξαντος Ἀγάθωνος τοῦ τοιούτου· καίτοι τί διαφέρει ἢ ἐμβόλιμα ᾄδειν ἢ εἰ ῥῆσιν ἐξ ἄλλου εἰς ἄλλο ἁρμόττοι ἢ ἐπεισόδιον ὅλον*; These words are not ambiguous or obscure. It is surprising that they should have been so consistently misunderstood or partially understood. In the first sentence Aristotle states briefly the whole function of the chorus,[8] adding by way of illustration *μὴ ὥσπερ Εὐριπίδῃ ἀλλ' ὥσπερ Σοφοκλεῖ*. This refers to the *manner* in which these poets gave their choruses a connection with the plot, not to the fact; for the chorus in Euripides takes a larger part in the action and, in this respect, does the work of an actor, to a greater extent than in Sophocles. And yet there is an essential and unmistakable difference in the conceptions of these two poets of the true function of the chorus. This difference is exhibited, not so much in the external conduct of the

[7] A full collection of inscriptions published before 1888 is given by BRINCK, *Inscriptiones graecae ad choregiam pertinentes*, Halle, 1888. Some of the above are given on the strength of Brinck's restorations.

[8] So far as this was possible in a single sentence, seeing how varied and complex are the functions of the chorus in the best plays of the best poets. *Prob.* 18, 48: *ἔστι γὰρ ὁ χορὸς κηδεστὴς ἄπρακτος· εὔνοιαν γὰρ μόνον παρέχεται οἷς πάρεστιν*, if genuine, probably reflects the opinion of Aristotle when he was still more under the influence of Sophocles than when he wrote the *Poetics*. ARNOLDT, *Chorische Technik des Euripides*, p. 50.

chorus, but in the very motive of its presence in the play. The choruses of Sophocles, as a rule, have a deeper sympathy with the actors, a more intimate connection with the plot, than those of Euripides, although those of the latter move about more freely and come into closer personal contact with the actors than those of the former.[9] This is a distinction that has been generally overlooked by interpreters of Aristotle. Or are we to suppose that a critic like Aristotle approved more heartily of the active chorus of the *Helen* than of the inactive chorus of the *Oedipus Rex?* It is true that he commended the chorus that took its part in the action, as is sufficiently indicated by *συναγωνίζεσθαι.* Much depended on the plot chosen by the poet. The chorus in the *Bacchae* necessarily bore a very different character from that of the *Oedipus*, though one could hardly say that it was better motived. But undoubtedly Aristotle intended that the main stress should be laid upon what we may term the inner character of the chorus, as is shown not only by the comparison of Sophocles and Euripides, but also by what immediately follows in the text.

"The melic parts," he proceeds, "of the successors of Euripides and Sophocles belong no more to the myth than to another tragedy altogether, in fact are mere interludes. Agathon was the first to do this sort of thing. But this is no more justifiable than to transfer whole speeches or episodes from one tragedy to another." The fact that Aristotle proceeds to discuss the pertinency of the melic parts to the subject of the drama is a confirmation of the view advanced above, that in the first sentence he had in mind, though not exclusively, as here, the *manner* in

[9] MUFF, *Chorische Technik des Soph.*, finds that the Sophoclean chorus takes no part in the action in *Antigone*, *Electra*, *Oedipus Rex*, and *Trachiniae*, while some of the melic parts in the last named drama alone are open to the charge of irrelevancy. Arnoldt, *l.c.*, criticizes the *Hecabe*, *Andromache*, *Troades*, *Helen* and *Iphigenia Aul.* for the intermezzic character of some of their choral odes, but no play for the inactivity of its chorus. MAHAFFY, *Gr. Lit.*, I, 317, goes so far as to say that the chorus "was not by Euripides, but by Sophocles, degraded to be a mere spectator of the action." But he misses the distinction that I point out above. The weak remark of Schol. Arist. *Ach.* 443: *οὗτος γὰρ* (*i. e.* Eurip.) *εἰσάγει τοὺς χορούς οὔτε τὰ ἀκόλουθα φθεγγομένους τῇ ὑποθέσει κτέ*, and that of Accius (*apud* Nonius, p. 178): *sed Euripides, qui choros temerius in fabulis*, have had apparently too much effect on modern criticism. An able defense of the choruses of Euripides is found in Decharme, in *Euripide et l'esprit de son théâtre*, Paris, 1893.

which an ideal chorus should be made an integral part of the whole. There is not the slightest ground for the inference that the chorus whose odes are purely intermezzi take no part in the action.[10] Aristotle is discussing now a part of the function of the chorus; the whole was sketched in the first sentence. On the contrary, since one of the requisites of the ideal chorus is *συναγωνίζεσθαι*, and since *οἱ λοιποί* receive no word of criticism on this score, it is a fair inference that Aristotle had no reason to rebuke the poets of his day for the inactivity of their choruses. It will be shown later that the dramas of the fourth century seem to bear out this inference.

What is precisely Aristotle's criticism of Agathon? It is commonly asserted, on the strength of this passage, that Agathon was the first to substitute entertaining musical interludes for odes on subjects directly suggested by the play; that this was his practice and that of his successors. We have the authority of Aristotle that this was indeed the prominent characteristic of the tragedy of his day. But was it the regular practice of Agathon, or did he merely furnish one marked example of it? The latter is Welcker's view (*Gr. Trag.* p. 1000 ff.), and it seems to me extremely probable. In *ch.* 18 of the *Poetics* Aristotle warns against the danger of dramatizing an epic subject, extended in time and embracing too ramified a myth. Such an attempt, he says, cannot be successful. *σημεῖον δέ· ὅσοι πέρσιν Ἰλίου ὅλην ἐποίησαν --- ἢ ἐκπίπτουσιν ἢ κακῶς ἀγωνίζονται· ἐπεὶ καὶ Ἀγάθων ἐξέπεσεν ἐν τούτῳ μόνῳ.* From this Hermann and others have inferred that Agathon wrote a play embracing the material contained in the *Ἰλίου Πέρσις*. Now he would have been a poet of extraordinary ability who could have dramatized a story so full of incident and so extended in time, and at the same time have kept his chorus up to the Sophoclean standard. A good illustration is the *Troades* of Euripides, a more or less loosely connected series of scenes from the same subject as that of Agathon, but on a smaller scale. Some of the stasima narrowly escape being *ἐμβόλιμα*. Given the

[10] And yet many have committed themselves openly to this *non sequitur*. RIBBECK, *Röm. Trag.*, p. 7, says: "*damit* (*i. e.*, Agathon, by writing *ἐμβόλιμα*) *jede Theilnahme des Chors an der Handlung abschnitt*," and CHRIST, *Theat. des Polycl., Sitzungsber. der bay. Akad.*, p. 26: "*diese* (*ἐμβόλιμα*) *setzen ja keinen Wechselverkehr zwischen Chor und Bühne voraus.*" So also Leo, *Plaut. Forsch.*, p. 85, n. 2.

broader subject of the *Iliupersis*, it would have been almost impossible to link the episodes together more closely than, for example, the three parts of a trilogy. As for the chorus, it would have been an easy matter to give it a part in the action, but between the episodes it would be left high and dry. It seems to me, therefore, altogether probable that the play in which Agathon set the example of ἐμβόλιμα was an "Iliupersis," whether this was its exact title or not. It is not probable that so clever a poet made the experiment again. Elsewhere Aristotle has nothing but praise for him, considering him alone of the younger poets worthy to be placed side by side with Aeschylus, Sophocles, and Euripides.

We have seen that Aristotle gives us implicit information as to the character of the fourth century tragic chorus which furnishes us with a valuable presumption that will assist in our further investigation. We know that the choruses of Euripides show no decline in his later period, so far as concerns their participation in the action.[11] It is true that choral odes that may almost be called ἐμβόλιμα occur, though rarely. This is true even of Sophocles. Under the influence of Sophocles, Euripides, and Agathon, and partly, doubtless, through lack of higher dramatic ability, the poets of the fourth century came to neglect the vital, traditional connection of the chorus with the drama, which in early times was exhibited mainly in the choral songs. It is incredible, however, that the strong conservative influence[12] exercised by Aeschylus, Sophocles, and especially by Euripides, on the whole later history of the drama, should have failed to maintain the chorus, externally at least, in close connection with the plot. The sons of the three great tragic poets, thoroughly trained in the technique of their fathers, brought tragedy over into the fourth century, not considerably changed in any of its essential features. The tendency in the fifth century was to diminish the part of the chorus. This tendency doubtless continued. But if we had representative plays from the beginning and end of the fourth century, is it

[11] OEMICHEN, (*B.-W.*, p. 299), quotes the comic poet Plato *apud* Athen. XIV, 628E, to prove the inactivity of the chorus in the time of Euripides, (which was also, we should remember, the time of Sophocles). But Athenaeus quotes the verses merely to illustrate a point about choral (dithyrambic?) dancing.

[12] See RIBBECK, *Röm. Trag.*, p. 1.

probable that we should find a greater difference between them than between the *Suppliants* of Aeschylus and the *Aulian Iphigenia?* If the chorus were separated from both plot and action, it is hard to see why the Athenians should have spent so much money on its further maintenance.

The contemporaries of Demosthenes, who were thoroughly familiar with the masterpieces of the classical period of the drama, and who had the opportunity every year of comparing the new with the old, seemed to have loved the new no less by reason of the comparison. The καιναὶ τραγῳδίαι were the chief attraction of the Great Dionysia. Aristotle, also, who insisted so strongly on the maintenance of the high standard of the fifth century, by no means disapproved of the new tragedy. He draws his illustrations from Theodectes, Polyeidus, Dicaeogenes and Astydamus almost as often as from the classical trio, with whom he clearly believes them worthy to be classed.[13] Chaeremon and Carcinus are censured, but so is Euripides, by all odds the most popular poet of the time, almost as often as he is praised. Hence, though the extant fragments are too scanty to warrant an independent judgment, yet we have a good right to suppose that tragedy did not at once decline through the inferiority of the new generation of poets.

A probable indication of the general characteristics of the choruses of the later poets may be obtained from an examination of the plays of Euripides. The most natural expedient of a poet who is conscious of the dramatic weakness of his chorus is to introduce some external connection with the action, or to offer some form of entertainment that will draw attention from the defect. Sophocles seems to have resorted to this device in the *Trachiniae*, whose chorus, though weak in comparison with that of the *Oedipus*, still "*ergötzt das Publicum durch Mannifaltigkeit und Wechsel in Vortrag und Stellung*" (Muff., *l. c.* p. 226). A lesser poet, but perhaps a better though less conscientious playwright, Euripides, uses the first device. Take, for example, the two plays in which are found the clearest examples of ἐμβόλιμα μέλη—the *Helen* (third stasimon) and *Andromache* (fourth stasimon). Admitting

[13] Mahaffy again needs correction when he says (I, 390), that Aristotle "*hardly mentions any of them, and then almost always by way of censure.*"

for the moment that the chorus in these odes fulfils only the functions of a band, is the chorus in general of so little consequence to the action as a band? The *Helen* furnishes one of the few instances that have never been disputed of the passage of the chorus over the "stage" (*v. v.* 315, 327), and of its attack on actors (724, 846). In the *Andromache* (817 ff.), the chorus is on the point of entering the house when deterred by the entrance of Hermione. In every play whose chorus has been criticized for the irrelevancy of its songs,[14] whether the criticisms have been just or not, are found indications of direct participation in the action. In view of this fact I suspect that the chorus in Agathon's "*Iliupersis*" exhibited the same kind of activity. It was probably composed of soldiers. What more probable than that, when not singing their interludes, they should have filled the scene with "alarums and excursions"? It is doubtful if the audience would have found fault with such a chorus, whatever might be the verdict of the judges and of Aristotle.

The tragedy *Rhesus*, which tradition has assigned to Euripides, is now generally believed to have been written in the fourth century.[15] The grounds on which this belief rests are manifold, and, taken altogether, fairly conclusive. In view of the widespread and growing belief in its later origin, I shall call it into evidence on the question of the chorus of the fourth century—remembering always that this dating is to a certain extent hypothetical.

The chorus of *Rhesus* is formed of Trojan soldiers, the night-watch of Hector's camp. Its presence is remarkably well motived,

[14] Arnoldt has shown that there is generally a sufficient dramatic reason for the irrelevancy—and Arnoldt is no blind champion of Euripides, as Hartung was. The latter (*Eur. Restitutus* II, p. 369), finds only two odes that are open to this criticism—in *Iph. Taur.* and *Hel.* I omit the former in recognition of Arnoldt's defense (*l. c.* p. 86), and take the *Andr.* as a clearer case. The third stasimon of the *Helen* has been thought by Fritzsche and O. Müller to have been taken from another tragedy. On the fourth stasimon of *Andr.* see ARNOLDT, *l. c.* p. 68. Few critics would agree with Bernhardy, who says that the majority of Euripides' choral odes are merely "*Beiwerke und Randzeichnungen*," or would go as far as Wilamowitz, *Herakl.* I, p. 354. See WEIL, *Jour. des Sav.* 1893, p. 600.

[15] Since VALCANAER'S *Diatribe in Euripidis fragmenta* (see §88, page 85, of the Glasgow Euripides). SITTL (*Gr. Lit.* III, p. 331) is an exception. CHRIST (*N. Jahrb. f. Phil.* 1894, 160), has receded from the position taken in his *Litt. Gesch.*, p. 229, that it is a work of Euripides' early period. For the full literature of the subject see ROLFE in vol. IV of the *Harvard Studies*. Wilamowitz, *Herakl.* I, p. 130, suggests 370–80 as the probable time of composition.

and its sympathy with the actors complete. This close relation finds expression not only in appropriate choral songs but also in lively participation in dialogue and action. The chorus is in an unusual degree one of the actors. The realism of the play is enhanced by the departure of the chorus from the scene in order to call the relief watch, thus giving the spies the opportunity to enter the camp. The play is further remarkable for the appearance of two *θεοὶ ἀπὸ μηχανῆς*. The choral odes are short and metrically simple, but always apposite. The author of this play, therefore, conforms to the Aristotelian ideal of a chorus in both its applications, although he is entirely unhampered by conventions and rules in every other respect. An evident und doubtless conscious imitator, or rather student, of the earlier poets, he had yet native ability enough to give his chorus a distinct character of its own,[16] whatever be the defects in the economy of the piece. In its external characteristics the chorus is exactly what the preceding discussion has led us to expect in a play of the fourth century. On the other hand there are no *ἐμβόλιμα*—the compact plot prevented that. In other respects I suspect that it is very similar to the chorus in Agathon's "*Iliupersis*"—a play which would have afforded precisely the same opportunities for spectacle and animated action.

The first Roman tragedy was produced sixty years after the end of the fourth century. Roman tragedy, even to a greater extent than comedy, was confessedly not only modelled on that of the Greeks, but often directly copied (Cic. *de fin.* 1, 2). Even if no fragments were extant, we should have the right to assume that, as a rule, no important character of the original was omitted, especially in the earlier translations. Very slight evidence of "contamination" is found.[17] Oemichen[18] is to a certain extent right when he says that most of the Greek originals were

[16] CROISET, *Hist. Litt. Gr.*, III, p. 380, well says "*La façon dont il emploie le choeur en cherchant à suppléer par le spectacle et le movement au mérite des chants, dénote un esprit qui cherche.*"

[17] WELCKER, *Gr. Trag.*, p. 1348: "*im Ganzen und Grossen war die römische Tragödie vor der Augustischen Periode eine übersetzte, die einzelnen Stücke auf griechische Originale durchgängig gegründet.*"

[18] He wrongly adds: "(*Eine Zeit*) *in der die chorische Actione als lästige Fessel empfunden und deshalb beschnitten wurde.*" B–W. p. 285.

taken from the later period of the drama. They were taken from the plays which were at that time to be seen in Greek theatres. A large number of them, however, were the παλαιαὶ τραγῳδίαι, especially of Euripides. But whatever was the time of the composition of the Greek originals, we may expect to find in the Roman reproductions a fairly true reflection not only of the general character of the later Greek tragedy, but also the art and manner of the presentation of both the old and the new tragedies in the contemporary Greek theatre, just as is the case with comedy.

Grysar, Jahn, and Ribbeck have established the fact that Roman tragedy never lacked a chorus.[19] The activity of this chorus was not confined to the interludes, though not many years ago scholars maintained the contrary on the strength of Donatus[20] as confidently as they now maintain it, on the strength of Aristotle, for the later Greek tragedy. In Horace, *Ep.*, 2, 3, 215: *tibicen traxitque uagus per pulpitum uestem*, is found an indication of the customary freedom of movement of the chorus following the musician. In the scanty fragments Ribbeck and Jahn have found sufficient evidence that the choreutae regularly came into close contact with the actors. They engage in conversation with them in the *Medea* and *Thyestes* of Ennius, the *Antiopa*, *Chryses*, and *Niptra* of Pacuvius, and the *Philocteta* of Accius. Bacchic choruses seem to have been especially popular, occurring in the *Lycurgus* of Naevius, the *Periboea*, *Antiopa*, and *Pentheus* of Pacuvius, and the *Bacchae* of Accius. Such plays as the *Eumenides* and the *Alcumeo* of Ennius probably suggested to Cicero the image which he found so effective: "*quem ad modum in fabulis saepenumero uidetis, eos, qui aliquid impie sceleratque commiserunt, agitari et perterri Furiarum taedis ardentibus.* (*Rosc. Am.* 24, 67; cf. *in Pis.* 20). Further still, in the *Philocteta*, a chorus of sailors accompanies

[19] See GRYSAR, *Canticum u. Chor der röm. Trag.* in *Sitzungsber. d. wien. Akad.* 15 (1855), 365 ff.; JAHN, in *Hermes* 2 (1867), 225 ff., and RIBBECK, *Röm. Trag.* and *Gesch. d. röm. Dichtung*, and the convenient summary in Schwabe's last revision of TEUFFEL'S *Gesch. der röm. Lit.*, I, 20.

[20] Arg. to *Andria: est igitur attente animaduertendum ubi et quando scaena uacua sit ab omnibus personis, ut in ea chorus uel tibicen audiri possit; quod quom uideremus, ibi actum esse finitum debemus agnoscere. Tibicen* seems to refer to comedy, *chorus* to tragedy. Donatus is not in error. The function of the chorus during the progress of the piece does not concern him.

Ulixes and Diomedes, and a similar chorus appears in the *Iphigenia* of Ennius. In the *Antiopa* (?) of Pacuvius the choreutae threaten an actor (Ribbeck, T. R. F. *fr. inc.* IV), and in his *Niptra* (*fr.* IX) they carry the wounded Ulixes in upon the stage. In the *Antigona* of Accius (*fr.* IV), the chorus of watchmen seize the heroine as she sprinkles dust on her brother's corpse. A second chorus appears in the *Eumenides* and *Alexander* of Ennius and in the *Antiopa* of Pacuvius. Such subordinate choruses were probably always taken from the Greek original, but they seem to have been given far greater prominence. One of the peculiarities that we observed in the *Rhesus* occurs again and again on the Roman stage—the withdrawal of the chorus during the progress of the play. This is found in plays in whose Greek originals the chorus remained in its position, *e. g.*, the *Antigona*, *Iphigenia*, and others. Ribbeck regards it as exceptional for the chorus to remain on the scene from its entrance to the close of the piece. It probably came and went as it was needed, thus adding life and movement and spectacular effect, as well as affording more room on the stage for actors (Jahn, *l. c.* p. 227). The Roman poets in this way evaded the difficult task of keeping the chorus in easy and natural connection with the actors during the dialogues. In short, the chorus on the Roman stage, except for its songs between the acts, was much like the mobs, retinues, and armies on the modern stage, though it had a more intimate part in the action. To compare it with the modern band would be radically misleading.

I have mentioned so far only those plays which can with probability be traced back to fifth century originals. The plot, characters, and chorus generally are retained practically without change, but the treatment of the chorus reminds one rather of Aeschylus than of Sophocles. When Ennius in his *Iphigenia* substitutes a chorus of sailors for the Chalcidian maidens of Euripides, and Pacuvius in his *Antiopa* a chorus of watchmen for the Theban elders of Sophocles, the desire is clearly seen of establishing a closer personal relation between chorus and actors, with a view to imparting more life and activity to the former. Ennius and Pacuvius doubtless had examples to follow, not only in the later Greek imitations of the classical dramas, but also in the practice of the stage-managers in the contemporary Greek theatres, who regu-

larly brought out the old favorites, set and interpreted according to the tastes of the time, very much as Shakespeare is brought out in our own day in the best theatres.

It is difficult to identify Roman copies with originals from the fourth and following centuries, firstly because only scanty fragments of both original and copy remain; secondly because the Roman poets often changed the original title. Some of the plays above mentioned may come from late treatments of subjects used by the earlier poets; for the late Greek tragedy shows little variety in the selection of myths and much imitation in their employment. Undoubtedly some of the Bacchic subjects are of this class, *e. g.*, the *Statistae* or *Tropaeum Liberi* of Accius, the *Nuptiae Bacchi* of Santra, and, according to Leo, the *Periboea* of Pacuvius. Welcker and Ribbeck refer the original of the *Hector Proficiscens* of Naevius to Astydamas, whose *Hector* was a war piece, like the *Rhesus*. The *Penthesilea* of Ennius (?) seems to go back to Chaeremon, as well as the *Io* of Accius, whose *Hellenes* was probably taken from Apollodorus. The *Armorum Judicium* of Pacuvius was more likely a copy of the *Aias* of Theodectes, which, according to Aristotle (*Rhet.* 1399 B, 1400 A), gave special prominence to the ὅπλων κρίσις, than of the similar piece by Aeschylus. Other plays that cannot be identified, but which almost certainly do not go back to the fifth century, show traces of important choruses. The *Iliona* of Pacuvius used to a certain extent the material of the *Hecabe* of Euripides, but is later; the *Ino* of Livius had a chorus of worshippers of Trivia, and the *Nyctegresia* of Accius was probably a copy of the *Rhesus*. The *Alexander* of Ennius had a chorus of shepherds. The *Myrmidones* of Accius, if it is not after Aeschylus, as Ribbeck thinks, may have been taken from Astydamas, Carcinus, Euaretus, or another fourth century poet. It admits of no doubt that, if we had more extensive data, we should find that a very large number of Latin tragedies were based on post-classical originals.[21] The chorus in the Roman tragedy, with its leading characteristics which I have tried to trace, was not an inheritance from the old Greek tragedy alone, but from Greek tragedy as a

[21] LEO, *Seneca*, I, p. 158, *n.* 15, attributes the following to post-Euripidean poets: the *Dulorestes*, *Iliona*, *Medus*, *Periboea*, and *Atalanta* of Pacuvius, and the *Melanippus*, *Clytemnestra*, and *Hellenes* of Accius.

whole. So firmly had the Greek conception of tragedy taken hold of the Romans that, when they made a national tragedy of their own, as far removed as possible from Greek influence, the chorus was retained as a matter of course. Ribbeck embraces Roman tragedy of all periods, both Greco-Roman and praetexta, when he says (*Gesch. röm. Dicht.* I., 194), that it strove "durch drastische Mittel die Aufmerksamkeit zu fesseln," and he considers that the chorus contributed largely to that end.

The Roman chorus appeared, of course, upon the stage. There was no other place for it, and the Roman stage was large enough. The activity of the Roman chorus has been explained by this fact alone, for when brought so near the actors and upon the same level, what was more natural than that it should be given a part in the action? What was the exception in the Greek theatre, says Jahn (*l. c.* p. 227), became the rule in the Roman, that the chorus might not become a mere chorus of dummies. But Jahn, of course, did not know that it was, in fact, the rule in the Greek theatre also for the chorus to commingle with the actors. One who recognizes the general attitude of the Roman poets toward their Greek models, and their almost absolute lack of originality in all that pertains to dramatic art, will be loth to concede that the chorus was rescued by them from imbecility, or even elevated by them from a position comparable to that of a band. In view of the interpretation of Aristotle, which I have offered, and of the evidence of the last plays of the fifth century and of the fourth century *Rhesus*, I cannot but think that the Roman chorus, which seems hitherto to have been overlooked in interpreting the Greek, furnishes strong grounds for believing that the external characteristics of the Greek tragic chorus, and, to a certain extent, its inner relations to the drama, remained unimpaired from the fifth century down to the first. Horace was not only laying down a practical precept, but was also insisting on an actual, historical fact, when he defined the functions of the tragic chorus:

> actoris partes chorus officiumque uirile
> defendat, neu quid medios intercinat actus,
> quod non proposito conducat et haereat apte.

THE LATER SATYRIC CHORUS.

Originally one of the most characteristic forms of the worship of Dionysus, and, with the dithyrambic chorus, the precursor of both tragedy and comedy, the satyr-drama in classical times occupied a position at the festivals and in public interest distinctly inferior to tragedy and comedy. Comedy had so grown in popularity after its admission to the Great Dionysia, and filled so satisfactorily the desire of the Athenian populace for scurrility, irreverence and buffoonery, that we can readily conceive that the satyr-drama continued to wane in proportion as its traditional importance was lost sight of. When it became necessary for Athens to retrench expenses on all sides to tide over the years of distress that followed the Peloponnesian war, we should expect to find that the lusty companion of tragedy was the first to feel the change. There is no record until 340 B. C., however, that such a change was made. An inscription of that year (*CIA*, II, 973, *ll.* 17, 30), shows that the number of satyric plays given each year was reduced from three to one. Yet during the first half of the fourth century the satyr-drama seems to have continued to flourish. Achaeus the Eretrian, a younger contemporary of Euripides, held a high place in satyric poetry. The philosopher Menedemus ranked him next to Aeschylus ἐν τοῖς σατύροις (Diog. Laert. 2, 133). The titles of seven of his satyri are known. Still later than Achaeus, Astydamas is represented by two, Chaeremon by three or four,[22] Python and Timocles by one each, while four or five fragments that possibly belong to this period are found among the ἀδέσποτα.[23] This is a large number considering that titles can be reclaimed for this branch of the drama often only by the shrewdest combinations alone.

Toward the end of the fourth century it seems that the satyr-drama fell more or less into disuse, though we are told of the performance of the Ἀγήν, a σατυρικὸν δραμάτιον, of which either Python or Alexander the Great was the author (Nauck, *T. G. F.*² p. 810). A revival took place under the influence of Sositheus of

[22] NAUCK, *T. G. F.*² pp. 781 ff.; WELCKER, *Nachtrag*, 288 ff. I am inclined to think that the Κένταυρος also was a satyric drama, not a tragedy. The comic poets Pherecrates and Nicochares made use of the same subject in the Ἄγριοι and Κένταυρος.

[23] NAUCK, *T.G.F.*² Nos. 90, 146, 165, 205, and possibly 346.

the Alexandrine Pleias, as is recorded by his contemporary, Dioscorides (*Anth. Pal.* VII, 707). The satyr Scirtus is supposed to be standing at the tomb of the poet, as another had done at that of Sophocles (*ibid, no.* 37), speaking as follows:

Κἠγὼ Σωσιθέου κομέω νέκυν, ὅσσον ἐν ἄστει
ἄλλος ἀπ' αὐθαίμων ἡμετέρων Σοφοκλῆν,
Σκίρτος ὁ πυῤῥογένειος· ἐκισσοφόρησε γὰρ ὠνὴρ
ἄξια Φλιασίων, καὶ μὰ χορούς, Σατύρων.
κἠμέ, τὸν ἐν καινοῖς τεθραμμένον ἤθεσιν ἤδη,
ἤγαγεν εἰς μνήμην, πατρίδ' ἀναρχαίσας.

πατρίς, as Welcker (*Gr. Trag.*, 1254, note) says, is clearly a reference to Athens. The chorus was still the prominent feature as of old. In fact a satyric play without a chorus, either of satyrs or of a suitable substitute for them, (*e. g.* the pupils of Menedemus in Lycophron's piece Μενέδημος), is not to be thought of at any period in the history of this branch of dramatic poetry.[24] The importance of the satyr-drama after the revival instituted by Sositheus is shown by the fact that they were composed by at least four of the seven Pleiades—Philiscus (Nauck, *T. G. F.* p. 819), and Alexander Aetolus (Schenkl, *Wien. Stud.* 10, 326), besides Sositheus and Lycophron—as well as by Callimachus, Timon and Timesitheus (Welcker, *Nachtrag*, 313), and Ameinias (*CIG* 1584, *ca.* 195 B. C.)—an importance reflected in the art of the third and following centuries.[25]

The continuance of the satyr-drama outside of Athens even down into Roman times has long been known from inscriptions. See Le Bas, *As. Min.* p. 37, *nos.* 91, 92; *CIG* 1584, 1585, 2758, IV; *Bull. Corr. Hell.* 2 (1878), 590; Ἐφημ. Ἀρχ. 1884, 121 ff.; *Archiv. d. missions scientif. et littér.*, 2me ser., tom. IV, 522; Rhangabé, *Ant. Hell.* II, 691, l. 20; Keil, *Insc. Boeot.*, p. 61; *cf.* Diog. Laert. 5, 85. Fulgentius tells of the *satyra* in Alexandria after the time of Cicero.[26] New records have more recently come to light. An inscription from Rhodes, skilfully put together by Kaibel (*Hermes* 2,

[24] "Dass ein Satyrdrama ohne Satyrchor bestehen konnte .... lässt sich in keinem Fall glaublich machen," Kaibel, *Hermes*, 1895, 73. For the chorus in the *Menedemus* see Ath. 10, 420; ἐν οἷς φησιν ὁ Σιληνὸς πρὸς τοὺς σατύρους, and *cf. ibid.* 427 C.

[25] ATH. 196 F, 198 D.; JAHN, *Berichte d. sächs. Gesell. d. Wiss.* 1847, 294, and *Philologus* 27, 17; HEYDEMANN, ninth *Winckelmann Prog.* from Halle, p. 10.

[26] WELCKER, *Gr. Trag.*, p. 1270.

269 ff.) tells of the production in the first century before Christ of a complete Sophoclean trilogy followed by the satyr-drama *Telephus*. Finally some inscriptions from Magnesia, recently published by Kern (*Ath. Mitth.*, 1894, 96 ff.), give a satyric piece with the lists of comedies and tragedies for each year. The poets and plays for five years are as follows: Theodorus Θυτῇ (Θυέστῃ?); Polemon, name of play omitted; Polemaeus Αἴαντι; Harmodius Πρωτεσιλάῳ; Theodorus Παλαμήδῃ. The date is about the first century. Although at this time Athens was no longer the centre of the Hellenic world, yet the fact that the documents above quoted come, not from Alexandria, Pergamon or Antioch, but from small inland towns and from islands, whose festivals had a purely local character, lends no small degree of probability to the supposition that the satyr-drama still flourished at its early home.[27]

THE CHORUS IN THE MIDDLE COMEDY.

The plays of Plautus and Terence, which go back almost exclusively to the new comedy,[28] must be accepted as proof that the comic chorus had disappeared by the second century before Christ. We should perhaps be justified in placing the date still earlier, but for the fact that among the fragments of the new comedy are found remains of choral odes, which Meineke has collected in vol. 1, p. 441 ff. of his Comic Fragments. The Soteric inscriptions of

[27] The question of the satyr-drama among the Romans does not concern us here. The *Erigona* and Σύνδειπνοι of Quintus Cicero were probably satyric plays (Ribbeck, *Röm. Trag.* 626 ff.), and the *Sisyphus* of Pomponius (Porphyrio on Hor. *Ep.* 2, 3, 221). Horace certainly seems to have living and future writers of σάτυροι in mind in *Ep.* 2, 3, 221 (Kiessling. *ad loc.*). The close resemblance, if not relationship, between the Atellane farces and the satyr-drama is well known. The farces of Sulla were said to be σατυρικαὶ κωμῳδίαι (*Ath.* 6, 261 c). In the face of all this and the evidence cited above, the contention of Maass (*Annali del Inst.*, 1881, 120) that the satyr-drama disappeared after the Pleias, cannot be maintained. Kern's view that the satyr-drama flourished in Rome as a distinct branch of the drama is more probable now than ever before.

[28] HÜFFNER, *de Plauti comoed. exemplis Att.*, Diss. Gött. 1894, agrees with Wilamowitz (*Index Lect.* Gött., 1893), in attributing the *Persa* to a fourth century original. Holm, however, will not concede even this (*Berl. phil. Woch.* 1894, 1253). Almost all of the Plautine pieces whose originals can be dated come from the first quarter of the third century. Apart from Aul. Gel. 2, 23, there is no evidence of the use of models from the middle comedy.

the third century give some comic choreutae in each list.[22] Roman comedy, like Roman tragedy, followed the contemporary Greek usage even in using models of an earlier period. The chorus in the new comedy, however, as far as it existed at all, was only a shadow of the earlier comic chorus. On the other hand the last extant play of Aristophanes has a chorus that is materially curtailed. What was the history of the chorus during this interval of 100 years? It is the general belief that the marked decline noticed in the second *Plutus*, produced in 388, probably the next year after the *Ecclesiazusae*, whose chorus is still vigorous, was followed abruptly by a practically chorusless comedy. The chorus was the heart and soul of the old comedy. Its abolition involved the entire reconstruction on experimental lines of this branch of the drama. So great a change, if it occurred suddenly, must have been produced by the pressure of external influences. If no such influences can be found, and no authentic record of the sudden change, then we must believe that the history of the middle comedy was a history of gradual development as regards both form and matter. The question therefore limits itself to this—have we sufficient evidence for the prevalent belief that the comic chorus, as we know it from the old comedy, was abolished early in the fourth century?

Our principal sources for the history of the later Attic comedy, apart from the scanty notices in Aristotle, are the treatises of the grammarians which are prefixed to the scholia of Aristophanes. Most of them are wretched compilations, but they go back to earlier authorities, whom we can trust if only we can glean their statements from the mass of rubbish in which they are buried. Many contributions have already been made toward this result. Of these the instructive dissertation of Fielitz, *de Atticorum comoedia bipartita*, Bonn, 1866, must receive especial attention here. His main contention is that before the time of Hadrian the threefold division of Attic comedy was unknown; that the Alexandrine grammarians recognized only two, the old and the new. Thus many contradictions in the ancient notices find an easy explana-

[22] Dated by DITTENBERGER after 229 B. C. MÜLLER, *B-A.* 433, thinks that the chorus simply filled the pauses in the play—an inference that is by no means necessary.

tion. Kaibel (*Hermes*, 24 (1889), 56 ff.) has shown that Fielitz left out of account the certain existence of a tradition which the post-Hadrianic writers took up. Two canons long existed side by side, that of the Alexandrines recognizing the threefold division, and that of the Pergamene school the twofold. Our notices are generally a mixture of the two. Fielitz tried further to prove that, in the twofold division, what was afterward called the middle comedy was classed with the new. So far as I know this claim has received general acceptance. The argument rests essentially on the assumption that the middle comedy resembled the new more than the old. I believe that it can be shown that the contrary is the case, especially as regards the chorus, whose absence from the middle comedy Fielitz takes for granted.

Aristotle had noticed that a change had taken place in comedy. Poetry, he says in the *Poetics* (1451 B, 7 ff.), differs from History in that it confines itself to *τὰ καθόλου*, whereas the latter deals with *τὰ καθ' ἕκαστον· ἐπὶ μὲν οὖν τῆς κωμῳδίας ἤδη τοῦτο δῆλον γέγονεν· συστήσαντες γὰρ τὸν μῦθον διὰ τῶν εἰκότων, οὕτω τὰ τυχόντα ὀνόματα ὑποτιθέασιν, καὶ οὐχ ὥσπερ οἱ ἰαμβοποιοὶ περὶ τὸν καθ' ἕκαστον ποιοῦσιν.* The *ἰαμβοποιοί* are especially the old comic poets. In 1449 B, 8, Crates is said to have been the first to give up *τὴν ἰαμβικὴν ἰδέαν* in comedy. In *Eth. Nic.* 4, 14, 1128 A, 22, he makes the point clearer: *ἴδοι δ' ἄν τις καὶ ἐκ τῶν κωμῳδιῶν τῶν παλαιῶν καὶ τῶν καινῶν· τοῖς μὲν γὰρ ἦν γελοῖον ἡ αἰσχρολογία, τοῖς δὲ μᾶλλον ἡ ὑπόνοια.* From these passages we learn that the comic poets of his day abused people in a general way and not by name, and that they had substituted suggestive allusions for downright obscenity, and that the change begins with Crates, that is, just before Aristophanes. That Aristotle is speaking of the general tendencies that characterized the early and the recent comedy is abundantly shown by the plays of Aristophanes and the fragments of his successors. It is to be noticed that he uses the general terms *παλαιά* and *καινή*, whereas the grammarians generally use the more specific *ἀρχαία* and *νέα* to distinguish the definite periods. Aristotle has no intention of marking out specific periods in the history of comedy. It was still too early for that. But the broad distinctions that he draws between "the former and the recent comedies" became the starting point for the early

grammarians, who received their impulse and their methods largely from him. Almost every succeeding writer accepted as the principal criterion for the various periods the extent and the quality of the *σκώμματα* employed. In the last passage quoted the division into two periods lies on the surface: (1) the period of open abuse, roughly the fifth century, (2) the period of mitigated license, the fourth century down to the time of writing. Taking strictly into account the reference to Crates, we could make three periods: (1) the period before Crates, (2) that of Aristophanes, (3) from Aristophanes to Aristotle—for we know that *αἰσχρολογία* characterizes Aristophanes much better than *ὑπόνοια*. Aristotle doubtless did not intend, however, that the *καινή* should begin with Crates. He mentions him incidentally, very much as he mentions Agathon in the *Poetics*, as the precursor of the change that afterward prevailed. I cannot agree, therefore, with Wilamowitz (*Herakles* I, p. 134, note) when he says that the comedy afterwards designated as *μέση* (the *καινή* of Aristotle) was originally intended as a division according to content and not according to time (*begrifflich*, not *zeitlich*). The fact that Plato is the regular representative in the ancient accounts of the *μέση*, though he was a contemporary of Aristophanes, upon which Wilamowitz's assertion seems to rest, will be explained later on. Certainly we do not find in him that mildness which Aristotle ascribes to the middle comedy. To go back to Aristotle, one fact deserves especial emphasis. He says not a word about the chorus.

After the development of the new comedy of Philemon and Menander it was possible to make either a broad division of Attic comedy into two periods on the basis of the presence or absence of the chorus and other characteristics equally marked, or to extend Aristotle's twofold division, on the basis of the *σκώμματα* employed, designating his *καινή* as middle, or lastly to make a still more subtile division suggested by the reference to Crates. Naturally considerations of language, metre, myth, etc., would also be taken into account. The first, the twofold division, which Kaibel attributes to the Pergamene school, appears in several ancient accounts; the second, which modern scholars have adopted, seems to have found very little favor in ancient times, whereas the third, which seems the least acceptable of all, is

found in a large majority of the writers περὶ κωμῳδίας. It will be necessary to examine these various traditions to ascertain whether or not Fielitz's position is tenable.

The anonymous writer περὶ κωμῳδίας v (Dübner and Bergk), whose account is the most straightforward of all, recognizes the three divisions, τὸ μὲν ἀρχαῖον, τὸ δὲ νέον, τὸ δὲ μέσον. In the analysis of the differences between them, however, he apparently leaves τὸ μέσον out of account. Hence editors have bracketed these words as an interpolation. But Kaibel (*l. c.*, p. 63) believes that the whole account is a careless Byzantine contamination, undeserving of correction, addding that τὸ μέσον, if due to an interpolation, would have been put in its proper position between the two others. I agree with Kaibel that the words belong where they are, but for a very different reason, which has been strangely overlooked. The account proceeds: τῆς δὲ νέας διαφέρει ἡ παλαιὰ κωμῳδία χρόνῳ, διαλέκτῳ, ὕλῃ, μέτρῳ, διασκευῇ. Χρόνῳ μέν καθὸ ἡ μὲν νέα ἐπὶ Ἀλεξάνδρου, ἡ δὲ παλαιὰ ἐπὶ τῶν Πελοποννησιακῶν εἶχε τὴν ἀκμήν. - - - - - - διασκευῇ δὲ, ὅτι ἐν μὲν τῇ νέᾳ χοροῦ οὐκ ἔδει, ἐν ἐκείνῃ δὲ δεῖ. 2. καὶ αὐτὴ δὲ ἡ παλαιὰ ἑαυτῆς διαφέρει. καὶ γὰρ οἱ ἐν Ἀττικῇ πρῶτον συστησάμενοι τὸ ἐπιτήδευμα τῆς κωμῳδίας (ἦσαν δὲ οἱ περὶ Σουσαρίωνα) καὶ τὰ πρόσωπα εἰσῆγον ἀτάκτως, καὶ μόνος ἦν γέλως τὸ κατασκευαζόμενον. 3. ἐπιγενόμενος δὲ ὁ Κρατῖνος κατέστησε μὲν πρῶτον τὰ ἐν τῇ κωμῳδίᾳ πρόσωπα μεχρὶ τριῶν, στήσας τὴν ἀταξίαν, καὶ τῷ χαρίεντι τῆς κωμῳδίας τὸ ὠφέλιμον προσέθηκε, τοὺς κακῶς πράττοντας διαβάλλων - - - -. 4. ἀλλ' ἔτι μὲν καὶ οὗτος τῆς ἀρχαιότητος μετεῖχε καὶ ἠρέμα πῶς τῆς ἀταξίας. ὁ μέντοι γε Ἀριστοφάνης μεθοδεύσας τεχνικώτερον - - - - καὶ οὕτω πᾶσαν κωμῳδίαν ἐμελέτησε. καὶ γὰρ τὸ τούτου δρᾶμα Πλοῦτος νεωτερίζει κατὰ τὸ πλάσμα. τήν τε γὰρ ὑπόθεσιν οὐκ ἀληθῆ ἔχει καὶ χορῶν ἐστέρηται, ὅπερ τῆς νεωτέρας ὑπῆρχε κωμῳδίας. To my mind it is perfectly clear that the author adheres to the three divisions throughout. At first he draws the broad, general distinction between the παλαιά and the νέα, then the finer distinction between the two kinds of παλαιά. τὸ ἀρχαῖον is represented by Susarion, and is characterized by crude technique. The next is the period of perfected technique, represented by Aristophanes. Cratinus falls between the two. The whole ancient comedy reached its highest point at the time of the

Peloponnesian war. Aristophanes was not only the best poet of his own period, but of his age as well. Then comes a different *kind*, well distinguished from the preceding, but already foreshadowed in the later plays of Aristophanes—*τὸ νέον*. The strict use of *ἀρχαῖος* and *παλαιός* places it beyond doubt that *τὸ μέσον* was intended to designate the second period of the first division. The account is perfectly logical, for the lack of a chorus in the new comedy differentiated it distinctly from both the others, whereas the difference in the first two periods was one of species, not of genus. The division may be represented by the scheme I *παλαιά*, (a) *ἀρχαία* (b) *μέση*, II *νέα*.

From the fact that the acme of the new comedy is placed *ἐπὶ Ἀλεξάνδρου* Fielitz argues that the comedy of the fourth century was classed with the new, because Philemon alone of those whom we assign to the new comedy had yet produced plays "*Alexandro regnante.*" But the very fact that Menander, *τὸ ἄστρον τῆς νέας κωμῳδίας*, flourished after Alexander's death shows that the phrase is used, not unsuitably, as a designation of the Alexandrine period. According to this writer the *μέση* continued until the loss of the chorus.

The same account occurs again, incorporated bodily in the longer notice in Cramer's *Anecdota* I, 3, (Dübner IX a, 68, Bergk VIII, 14). Very similar is the notice of Diomedes (Suet. *ed.* Reifferscheid, p. 9): *Poetae primi comici fuerunt Susarion Mullus Magnes; hi ueteris disciplinae iocularia quaedam minus scite ac uenuste pronuntiabant . . . . . Secunda aetate fuerunt Aristophanes Eupolis et Cratinus, qui uel principum uitia sectati acerbissimas comoedias composuerunt. Tertia aetas fuit Menandri Diphili et Philemonis, qui omnem acerbitatem comoediae mitigauerunt atque argumenta multiplicia graecis erroribus secuti sunt.* Diomedes does not mention the chorus elsewhere. He implies that Attic comedy always had a chorus. It will be noticed that in addition to the technique (cf. *minus scite* and *ἀτάκτως*) he takes up again the criterion of abusiveness. This is entirely the basis of Anon. IX *a*, l. 150 ff. (Dübner; VIII, 24 Bergk), who makes three classes *πρώτη, δευτέρα, τρίτη*, (1) *σκώμματα φανερά*, down to Eupolis, (2) *τὰ συμβολικὰ σκώμματα*, Eupolis, Cratinus, Pherecrates, Plato, and Aristophanes, and (3) *σκώμματα εἰς δούλους μόνους καὶ ξένους*, Menander and Philemon. Here, also, the chorus is left out of consideration.

So far no serious objection can be made to the threefold division of comedy, except as to the ignorant misapplication of Aristotle's suggestion about *σκώμματα*, which puts Aristophanes and his contemporaries among the milder poets. But another class of writers, following largely the same principle, fall into still greater error. As an example may be cited Anon. IX a, 1–53 (Dübner; VIII, 1–10 Bergk)—a miserable compilation, full of glaring contradictions and mistakes. The hand of the compiler or of a still later interpolator is detected everywhere.[30] The first part is a consistent though not very intelligent account of comedy, with special reference to the element of personal travesty. The definitions and divisions correspond to those just quoted from *l.* 150 ff. of the same extract. But the compiler adds: *γέγονε δὲ τῆς μὲν πρώτης κωμῳδίας ἄριστος τεχνίτης οὗτος τε ὁ Ἀριστοφάνης καὶ Εὔπολις καὶ Κρατῖνος· τῆς δὲ δευτέρας Πλάτων, οὐχ ὁ φιλόσοφος· τῆς δὲ νέας Μένανδρος.* The same divisions and the same poets are found in the short account of Andronicus and in the verses of Jo. Tzetzes *περὶ διαφόρας ποιητῶν.* It would seem that in their sources these writers found lists of poets made out on some principle of division, as well as divisions into period of comic literature, drawn up on other principles, and ignorantly tried to combine them.[31] But none of these writers was quite so stupid as Euanthius, who gives as the three divisions *vetus*, *satyra*, *nova*. These writers also omit to mention the chorus in this connection.

I shall mention next those writers who seem to recognize only two divisions of comedy, old and new.[32] Anon. VIII (Dübner)

[30] IX a contains almost all the other accounts. The passage under consideration is found also in Anon. IV and IX b (IX Bergk).

[31] This supposition would account for the fact that Cratinus, Eupolis, and Aristophanes, the representatives of unbridled license in writers who recognize the twofold division (*e. g.*, Hor. *Sat.* 1. 4, 1 ff.), are sometimes given as representatives of the *σκώμματα συμβολικά*, more satisfactorily, I think, than the explanation proposed by Hendrickson in *Am. Jour. Phil.*, 1894, p. 30, note. Such lists of poets are found in DÜBNER, III and VIII. Aristotle in *Poetics* 1449 B, 8, seemed to favor such a classification. On p. 15 the same writer suggests that the confusion in Euanthius' account arose from an attempt to harmonize the common threefold division with a twofold in which *satura* was equivalent to *ἀρχαία*. This seems very probable. Of course "*satyra*" refers to the *second* division of the *ἀρχαία*, which would more correctly be called *μέση* or *δευτέρα*.

[32] Omitting the passing allusions of various Roman writers, collected by Fielitz, and of Plutarch.

seems to belong to this class, for under the heading τῶν τῆς ἀρχαίας κωμῳδίας ποιητῶν ὀνόματα καὶ δράματα he mentions Theopompus, Strattis, Pherecrates, Crates, Plato, Teleclides, and Phrynichus, that is, an indiscriminate list of poets of the fifth and fourth centuries. The article *de comoedia et tragoedia*, published by Usener (*Rh. Mus.* 28, 417 ff.) distinguishes between the *prior ac vetus comoedia ridicularis*, whose author was Susarion, and the later comedy, represented by Plautus and Terence among the Romans, the writers of which, *omissa maledicendi libertate, privatorum hominum vitam cum hilaritate imitabantur*. So far no mention of the chorus. Tzetzes, in his verses περὶ κωμῳδίας *v.* 68 ff., mentions only the παλαιά and the νέα, the former having the chorus, the latter not. The context does not show how far the first division extends. This is true, also, of Horace's *chorus turpiter obticuit*, which will be considered later. The two Vitae of Aristophanes state that Aristophanes πρῶτος καὶ τῆς νέας κωμῳδίας τὸν τρόπον ἐπέδειξεν ἐν τῷ Κωκάλῳ, ἐξ οὗ τὴν ἀρχὴν λαβόμενοι Μένανδρός τε καὶ Φιλήμων ἐδραματούργησαν. If the writer meant that the new comedy began with the later plays of Aristophanes, which is by no means a necessary inference, we shall see later that he was in the wrong. The same holds true, so far as the chorus is concerned, of Platonius who dates the chorusless middle comedy from the same period. Anon. III makes the same threefold division that prevails to-day, but says nothing of the chorus.

Two significant facts as regards these notices should be emphasized. Firstly, the poets who are assigned to the middle comedy, (omitting Anon. III, who mentions Antiphanes and Stephanus) are Eupolis, Cratinus, Pherecrates, *etc.*, Plato always, and generally Aristophanes, but never Antiphanes, Alexis and others who belong to what we know as the middle comedy.[33] On the other hand, there is no confusion between the representatives of the comedy of the fourth and of the third centuries. Now, however faulty these classifications are, if the comedy of the fourth century had been recognized as forming a

[33] I refer, of course, only to those accounts which I have quoted above. Suidas, Pollux, Athenaeus, the scholiasts, *etc.*, often mention the poets of the fourth century as belonging to the middle comedy. But these passages are not taken into consideration here because they give no information on the question at issue.

distinct epoch, the poets of this period would not have failed to receive mention. The question arises, therefore, whether this period was considered as belonging to that of Plato or to that of Menander. Since the criterion of *κωμῳδεῖν αἰνιγματωδῶς* or *καθόλου* undoubtedly was first employed to distinguish the post-Aristophanic comedy from that which preceded it, we can most readily explain the fact that Aristophanes and Plato are often assigned to the second period, and that Menander and Philemon never are (Apul. *Florid.*, 3, 16 is a palpable error), by the supposition that the grammarians from whom these notices sprung had no clear idea of any distinction between the fourth century comedy and that of Aristophanes. We certainly cannot concede the claim made by Fielitz that the new comedy was considered to embrace the middle by the grammarians of the twofold division, because a few times, in Suidas and in passing allusions of late Roman writers, a poet of the new is assigned to the middle. The second significant fact will make my point clearer. Amidst all the confusion that pervades these notices, the lack of a chorus is constantly kept as a distinct characteristic of the new comedy, and in Anon. v, where the old and the middle are combined under the common head *παλαιά*, it is expressly stated that the *παλαιά* (not the *ἀρχαία*) required the chorus. Perhaps some significance should be attached to this fact also, that in many of the notices the chorus is not mentioned at all. Diomedes (Suet. *ed.* Reif., p. 11) certainly thought that Attic comedy always had a chorus. After various remarks about the chorus in general, he adds: *Latinae igitur comoediae chorum non habent.* Perhaps the chorus had not disappeared even from the new comedy so far as is generally believed.

Fielitz further remarks that the characteristics of middle comedy, as laid down by Anon. III, are really those of new comedy. He therefore proposes to cut out the references to the former as interpolations. But, as Kaibel has shown (*l. c.* p. 63), none of the characteristics assigned to middle comedy belong to it exclusively, whether it be the nature of the myths employed, the language, the metres, or the general spirit. The predominant traits of one period are found in the other two also, more or less modified. The designation of the comedy of the fourth century as the middle

comedy is convenient as marking the transition period, even if it is not in accordance with some of the grammarians. To class this period with the new, as Fielitz demands, would be to ignore one difference that is more marked than any other—the existence of the chorus in the fourth century and its absence in the third. We should be nearer the truth if we should class it with the old.

This brings us to the causes assigned for the abolition of the chorus. They are two in number: (1) the restriction of personal satire (a) by legal measures, (b) by intimidation of the poets, and (2) the withdrawal of choregic support.

It is hard to see how the restriction of the privilege of lampooning important personages, *ὀνομαστί* or *συμβολικῶς*, whether produced by law or by threats of vengeance, should have had anything to do with the abandonment of the chorus. And yet this is the teaching of many ancient authorities, and not a few modern. Horace heads the list with the verses (*Ep.* 2, 3, 281):

> *successit uetus his comoedia, non sine multa*
> *laude; sed in uitium libertas excidit et uim*
> *dignam lege regi; lex est accepta chorusque*
> *turpiter obticuit sublato iure nocendi.*

A poet may be excused an occasional *post hoc, ergo propter hoc.* But in this case Horace has misled others on a point of history. The Vita Aristophanis refers to a *ψήφισμα χορηγικὸν μὴ ὀνομαστὶ κωμῳδεῖν*, which took away *τὸ αἴτιον κωμῳδίας*, *τὸ σκώπτειν*, resulting in the chorusless *Cocalus* and *Plutus.* But it also mentions the default of the choregi, which is more likely to have caused the curtailment of the chorus in these plays. Euanthius also knew of a law in Athens *ne quisquam in alterum carmen infame proponeret*, but the result was that the poets, not the chorus, "became silent"—which is logical if not true. Perhaps Euanthius here as often confounded things Roman with Greek, having in mind the Roman law (Cic. *Resp.* 4, 10, 12). The scholia to Aristophanes furnish us with a fragmentary history of the legislation against scurrility.[34] A law was passed under Morychides

[34] For a full collection of such notices, of which the above are the most important, see HAUPT, *de lege quam ad poetas comicos pertinuisse ferunt*, p. 36 ff. Haupt shows that license did not cease until Alexander, and then not wholly. I follow *Bergk, Kl. Sch.* II, 444 ff.; cf. MEINEKE, *C. G. F.* I, 34 ff. Lübke's work on the subject has not been accessible to me.

440/39) and remained in force three years (Schol. *Ach.* 67). Its author may have been the Antimachus whom Aristophanes taunts in *Ach.* 1149 (Schol. *ad loc.*) Pseudo-Xen. *Resp. Ath.* 2, 18 probably refers to public opinion rather than to legislation. A certain Syracosius is said to have introduced a measure against the poets (Schol. *Av.* 1297). Droysen (*Rh. Mus.* 4, 59) conjectures with probability that this was intended only to prevent reference to the unfortunate affair of the Hermae and the mysteries. Anon. *περὶ κωμ.* IX a (Bergk VIII) evidently had this law in mind, but he wrongly assigns its authorship to Alcibiades.

After the fall of the Democracy, says Platonius, *ἐνέπιπτε τοῖς ποιηταῖς φόβος· οὐ γὰρ ἦν τινὰ προφανῶς σκώπτειν, δίκας ἀπαιτούντων τῶν ὑβριζομένων.* Then he tells how Eupolis was drowned by those against whom he composed the *Baptae.* The Eupolis story occurs again and again, with interesting variations (Mein. I, 119 ff.), but it remained for Kanngiesser[35] to elaborate this and similar stories into a touching chapter on the ill-treatment of the old comic poets. Now there is no doubt that the poets were persecuted in the courts by the objects of their satire (Bergk. *l. c.* p. 456), but the only known result in the best authenticated case, the attacks of Cleon on Aristophanes, was not the silencing of the poet, but a fresh attack in the *Knights.*

This is the extent of our positive knowledge of legislation against the liberty of the poets and of the attempts to intimidate them. We may judge of the effects in the plays of Aristophanes. Bergk thought that he detected a comparative mildness of tone in the plays produced about the time of the Four Hundred and of the Thirty. But comedy quickly assumed again its old freedom as soon as circumstances allowed. It is impossible to believe that, either in the fifth century or in the fourth, when a milder spirit prevailed, the existence of the chorus was dependent on the license to abuse.[36] The old authorities themselves furnish us with a good excuse for incredulity. It is a curious fact that those

[35] *Altkomische Bühne zu Athen*, p. 124.

[36] See *Croiset, Hist. Litt. Grec.* III, p. 583. I think with Leo (*Quaes. Aristoph.*, Bonn, 1873, p. 11 ff.) that the whole story of the restraint of license by law had its origin in an imaginative interpretation by the grammarians of certain passages in the comedies themselves, and that such laws as were actually enacted were for the protection of the higher state officials.

who attribute the disappearance of lampooning to law also record that at first the poets were compelled by law *ὀνομαστὶ κωμῳδεῖν* as a means of checking lawlessness in high places.[37]

The second reason assigned for the abolition of the chorus must receive more respectful consideration, inasmuch as it has until now remained undisputed. The anonymous writers *περὶ κωμῳδίας* have nothing to say about this point. But Platonius, after the reference to the Eupolis episode, adds: *καὶ ἐπέλιπον οἱ χορηγοί· οὐ γὰρ ἔτι προθυμίαν εἶχον οἱ Ἀθηναῖοι τοὺς χορηγοὺς τοὺς τὰς δαπάνας τοῖς χορευταῖς παρέχοντας χειροτονεῖν.* 8. *τὸν γοῦν Αἰολοσίκωνα Ἀριστοφάνης ἐδίδαξεν, ὃς οὐκ ἔχει τὰ χορικὰ μέλη. τῶν γὰρ χορηγῶν μὴ χειροτονημένων καὶ τῶν χορευτῶν οὐκ ἐχόντων τὰς τροφὰς ὑπεξῃρέθη τῆς κωμῳδίας τὰ χορευτῶν μέλη καὶ τῶν ὑποθέσεων ὁ τρόπος μετεβλήθη.* 9. *σκόπου γὰρ ὄντος τῇ ἀρχαίᾳ κωμῳδίᾳ τοῦ σκώπτειν δήμους καὶ δικαστὰς καὶ στρατηγούς, παρεὶς ὁ Ἀριστοφάνης τὸ συνήθως ἀποσκῶψαι διὰ τὸν πολὺν φόβον Αἴολον τὸ δρᾶμα τὸ γραφὲν τοῖς τραγῳδοῖς ὡς κακῶς ἔχον διασύρει.* 10. *τοιοῦτος οὖν ἐστιν ὁ τῆς μέσης κωμῳδίας τύπος, οἷός ἐστιν ὁ Αἰολοσίκων Ἀριστοφάνους καὶ οἱ Ὀδυσσεῖς Κρατίνου καὶ πλεῖστα τῶν παλαιῶν δραμάτων οὔτε χορικὰ οὔτε παραβάσεις ἔχοντα.* Then in § 14: *τὰ μὲν γὰρ ἔχοντα παραβάσεις κατ' ἐκεῖνον τὸν χρόνον ἐδιδάχθη καθ' ὃν ὁ δῆμος ἐκράτει, τὰ δὲ οὐκ ἔχοντα τῆς ἐξουσίας λοιπὸν ἀπὸ τοῦ δήμου μεθισταμένης καὶ τῆς ὀλιγαρχίας κρατούσης.* Then follows §§ 7–8 again, again the admission that other such plays as the *Ὀδυσσεῖς* are to be found in the old comedy, but under the oligarchy, and again the notice of the failure of the choregia. To this should be added § 10 and the interpolated § 11 of the Vita, which says that the *Cocalus* and *Plutus* were brought out under similar circumstances. In both these accounts are elements that arouse suspicion, especially the insistence on the fear of the poets and the "choregic law" against scurrility as helping to bring about the change. Platonius was an extremely careless compiler, as is shown by the repetitions.[38] He is strangely ignorant of the nature of the early choregia, supposing that the choregi were elected by the

[37] Anon. IV, IX a, IX b, Thom. Mag. (Düb. XV), CIC. *Resp.* 4. 10, 11, THEMISTIUS *Or.* 8, 110 B.

[38] FIELITZ, *l. c.*, p. 28. Leo, *Quaest. Aristoph.*, shows in detail that the whole article is a curious hodgepodge of several parallel accounts.

people, and that the choreutae could be selected without choregi. But this is probably blind inference from the reported failure of choral odes in the plays mentioned. Platonius himself practically admits this by prefacing his citation of the *Aiolosicon* by "at any rate" (γοῦν). The statement that the parabasis was lacking in the middle comedy and sometimes in the old is doubtless correct, but the explanation that it occurred in the latter only under the oligarchy is false. Cratinus died about 420, and the three plays cited of Aristophanes were brought out in the second decade of the next century, as was also the *Ecclesiazusae*, which has no parabasis. We are told that the plays mentioned had οὔτε χορικὰ οὔτε παραβάσεις. The lack of a parabasis seems to have been the only ground for this sweeping statement. The Ὀδυσσεῖς certainly had a chorus, as we know from the fragments. See Kock, C. G. F., I, 43 and 44, Meineke, fr. v, and Bergk, *Commentt. de reliq. comoed. att.*, p. 160 ff. Kaibel, *Hermes* 30, p. 25, makes it exceedingly probable that it had also a second chorus and a parabasis as well. The Αἰολοσίκων had a chorus of women (Kock, *ibid.* I, comment on fr. 10, and Meineke II, fr. X, XI, XII). The Κωκάλος probably had at least as important a chorus as the Πλοῦτος (Meineke II, fr. VI). Thus Platonius is refuted by his own examples. The occasional omission of the parabasis in the old comedy is significant as showing that its entire abandonment in the middle comedy was due to purely natural causes. Comedy had outgrown it, along with certain other crudities and exuberances. Perhaps the cost of the choregia was thereby lessened somewhat, though we cannot consider this the real cause of the change. The loss of the parabasis involved no serious change in the structure of comedy, as we see from the *Lysistrata*. The omission of the choral odes was a more serious matter, which could have been caused only by the collapse of the choregia. Now it happens that we have a few ancient notices to this effect.

A scholiast to Arist. *Ran.* 404 gives this important information: ἐπὶ γοῦν τοῦ Καλλίου τούτου[39] φησὶν Ἀριστοτέλης ὅτι σύνδυο ἔδοξε χορηγεῖν τὰ Διονύσια τοῖς τραγῳδοῖς καὶ κωμῳδοῖς. This is verified by an inscription of the early part of the fourth century (C. I. A. II, 280), which may refer to either tragedy or comedy, by another, dating not long after Euclid's archonship, record-

[39] Probably the archon of 406/5, possibly, however, of 412/11.

ing the joint choregia of two residents of Eleusis at both tragic and comic contests (Philios, *Ath. Mitth.*, 1894, p. 20), and by a third from the middle of this century relating to comedy alone (Köhler, *Ath. Mitth.* 7, 348). The next part of the same scholium rests on the commentator's own authority: *ὥστε ἴσως ἦν τις καὶ περὶ τὸν Ληναϊκὸν ἀγῶνα συστολή, χρόνῳ δ' ὕστερον οὐ πολλῷ τινι καὶ καθάπαξ περιεῖλε Κινησίας τὰς χορηγίας· ἐξ οὗ Στράττις ἐν τῷ εἰς αὐτον δράματι ἔφη σκηνὴ μὲν τοῦ χοροκτόνου Κινησίου.* In the first place the scholiast misunderstands the purpose of the new arrangement mentioned by Aristotle. That two choregi were to take the place of one in providing for a chorus indicates a desire not to stint the chorodidascalus (*συστολή*) but to provide for him as usual, at the same time making the burden upon each individual choregus lighter. The next statement is false, for we know that both tragic and comic choregiae continued long after Callias. Schol. *Ran.* 153, however, also accuses this same Cinesias of an attempt against the choregia: *ὁ Κινησίας ἐπραγματεύσατο κατὰ τῶν κωμικῶν ὡς εἶεν ἀχορήγητοι.* On the strength of this and the notices of Platonius and the Vita above quoted, even so careful a scholar as A. Müller (B–A., p. 342) concludes that the comic choregia was abolished after the Peloponnesian War.[40] It seems to me, however, that the whole tradition as regards Cinesias admits of a probable explanation. Cinesias, the dithyrambic poet, was not only repulsive in appearance, vile in his personal habits, and impious, if we may believe the poet Plato, Aristophanes, Anaxilas, and Lysias, but also a very poor poet. Aristophanes constantly ridicules his verses, and Plato, *Gorg.* 501 E, condemns them. Plutarch *de mus.* 30, 1141 E, after explaining some changes that had taken place in musical accompaniments, quotes from the *Chiron* of Pherecrates a complaint of Poetry about certain poets who had introduced disastrous innovations. The following is the reference to Cinesias (Mein. C. G. F. II, p. 327):

> *Κινησίας δὲ ὁ κατάρατος Ἀττικός,*
> *ἐξαρμονίους καμπὰς ποιῶν ἐν ταῖς στροφαῖς,*
> *ἀπολώλεκέ μ' οὕτως, ὥστε τῆς ποιήσεως*
> *τῶν διθυράμβων, καθάπερ ἐν ταῖς ἀσπίσιν,*
> *ἀριστερ' αὐτοῦ φαίνεται τὰ δεξιά.*

[40] So BRINCK, *Insc. Graec. ad choregiam pertin.*, Halle, 1888, p. 94.

At the end of the paragraph Plutarch adds: *ἄλλοι δὲ κωμῳδοποιοὶ ἔδειξαν τὴν ἀτοπίαν τῶν μετὰ ταῦτα τὴν μουσικὴν κατακεκερματικότων.* Cinesias then, in the opinion of Pherecrates and Plutarch, cut to pieces and killed dithyrambic poetry. Since the chorus was itself the dithyramb, Strattis goes no further than they when he applies to him the epithet *χοροκτόνος*. This suggested to the ancient commentator, who knew the hatred of Cinesias for his persecutors, the explanation *καθάπαξ περιεῖλε τὰς χορηγίας*. This, I believe, is the history of the whole tradition.

But we do not lack positive evidence of considerable importance for the existence of comic chorus after the time of its reported abolition. Besides the references to it in Aristotle *Pol.* 3, 3, 1276 B, 5, *Eth. Nic.* 4, 6, 1123 A, 22, the last paragraph of the extract *περὶ κωμῳδίας* recovered from the wreck of the second part of the *Poetics* by Bernays,[41] and Theophrastus, *Charac.* VI, the newly found *Ἀθηναίων Πολιτεία* gives the authoritative notice (§ 56): *πρότερον δὲ καὶ κωμῳδοῖς καθίστη (ὁ ἄρχων) πέντε, νῦν δὲ τούτους αἱ φυλαὶ φέρουσιν.* As late as 325 B. C., therefore, the comic choregia was regularly provided for. The first intimation of the decline of the chorus is given in the fragment of Menander beginning *ὥσπερ τῶν χορῶν οὐ πάντες ᾄδουσι* (Meineke IV, 117). But this may refer to the dithyrambic chorus. The only choregic inscription from Athens after this period which mentions a comic contest, (*CIA* II, 1289, Dittenberger, *Sylloge*, p. 417—307/6 B. C.) does not give evidence one way or another on the chorus.[42] But the fact that outside of Athens[43] the comic choregia lingered a long time still

[41] *Ergänzung zu Aristotles Poetik*, *Rh. Mus.* 8, 561 ff., reprinted in *Zwei Abhandlungen über die aristotelischen Theorie des Drama.* See Vahlen's and Christ's editions of the *Poetics.*

[42] KÖHLER in *Ath. Mitth.* 3, 287 judged from the fact that the poet and actor, not the tribe and didascalus, are mentioned in this inscription, that both tragedies and comedies were given without choruses. BRINK, *Insc. Graec. ad choregiam pertin.*, pp. 90, 99, has shown the falsity of this assumption.

[43] AESCH. *Tim.* 157. At Delos both comic and tragic choregiae are recorded down to the end of the III cent.; *Bull. Corr. Hell.* 7, 122 ff. Choruses of citizens were provided at Iasos in the II cent. (Le Bas, *As. Min.* 281; Lüders, *Dion. Künstler* p. 181). Cf. the *χορὸς πολειτικός* in the late Thespian insc. *CIG*, 1586. In the inscriptions from Samos and Teos of the II cent. (*CIG*, 3091; BRINK, p. 211, 212; *CIG*, 3089) the comic choregia is mentioned. Seven comic choreutae are given for each festival in the Soteric inscription from Delphi from the last part of the III cent. Cf. LÜDERS, p. 187 ff.; WESCHER and FOUCART, *Insc. de Delphes* I, *nos.* 3–6; DITTENBERGER, p. 404. As to the function of the chorus at these later festivals nothing positive is known.

makes it advisable to adopt a conservative position on the question, and to believe that in Athens the comic chorus was retained for some time, in some form, after the beginning of the third century. This belief finds confirmation in the extant fragments, as we shall see later on.

The existence of the chorus in the middle comedy can therefore be no longer called in question. But it may be said that it was not the same kind of a chorus as that in the old comedy. Here, also, we should not go further than the known facts warrant.

Even in the fifth century the choregi were sometimes inclined to be parsimonious. That this tendency would seriously affect comedy itself, and not simply hamper the didascalus in his training of the chorus, cannot be inferred from Arist. *Ach.* 1155, where the choregus is attacked for not having furnished a dinner after the performance, nor from Eupolis *fab. inc.* VII (Mein. II, 551), where the choregus is called "dirty," and still less from Arist. *Ran.* 404 (see schol.) On the other hand, it is rendered improbable by the fact that the Archon was expressly empowered to prevent any remissness on the part of the choregi (Xen. *Hieron* 9, 4). Still it is quite conceivable that in times of great financial distress the Archon and the poets would have allowed considerable curtailment of expenses. To some such circumstance we may ascribe the cutting down of the choral parts of the four plays mentioned in the ancient notices.

The arrangement made under Callias was certainly an attempt to sustain the chorus in its former prominence in comedy and in tragedy. This arrangement lasted until after 350. This must have reduced the burden of the comic choregi to a comparatively small amount. There is no reason to suppose that citizens became less willing than before to provide the necessary money. The orators abound in references to the liberality of the choregi. It is true that the tribes sometimes neglected to appoint choregi for the cyclic choruses (Dem. *Mid.* 13). But the case was quite different in comedy, for which it was the Archon's duty to appoint the choregi. Early in the fourth century the number of comedies for each festival was increased to five. This was due not only to the lessened expense of the choregia, but also to the

increasing popularity of comedy.[44] When the still further change was made—the transfer of the appointing power from the Archon to the tribes—is not known. But it must have been between the date of the latest synchoregic inscription (after 350) and the date of composition of the Ἀθηναίων Πολιτεία (*ca.* 325).[45] From this time on neglect on the part of the tribes or illiberality on the part of the choregi might often result in serious curtailment of the duties of the chorus. There was no longer the control of the Archon, but only the spirit of rivalry between the tribes, to maintain the chorus in its former splendor. Finally Demetrius of Phaleron entirely reorganized the choregia, probably in 307, making the Demos the nominal choregus for all contests, and laying upon the Agonethet a large part, at any rate, of the expense of the festival. This would encourage still more the tendency to cut down the expenses of the chorus, and explains the occasional omission of the dramatic contests which the inscriptions begin to record soon afterwards. The history of the choregia, therefore, would lead us to believe that the comic chorus was generally well sustained until after 350; that before 325 it was possibly neglected, and that after 307 it was probably rapidly reduced in importance until it finally disappeared. No doubt Philemon, and Menander, who was under the influence of Aristotle's teaching, resisted the tendency as long as possible. But the ties of the chorus to comedy were gradually growing weaker. In the course of the century comedy had had time to adapt itself to the changing conditions, so that when at last the chorus was abandoned there was no sudden change in the nature of comedy itself, such as would have resulted from the loss of the chorus a century earlier.

It remains to discuss the character of the chorus of the middle comedy. We are told by Platonius and the Vita that the *Plutus* is a representative of the second period. But the diminution in the importance of its chorus may have been due to peculiar

[44] HAIGH, *Att. Theat.* p. 31, says that it was due to "the disappearance of the chorus from comedy." But the first known occurrence of the new arrangement was at the performance of the *Plutus*, which itself has a not inconsiderable chorus.

[45] There is no reason for thinking with Wilamowitz, *Aristotle und Athen* I, 254, note, that the increase to five and the tribal choregia were parts of the same change.

circumstances. Besides, the corrupt state of our manuscripts makes it impossible to determine how much more prominent the chorus was in the play as performed in 388 than it is in the present text. The χοροῦ of the MSS. is probably an indication of the loss of the original odes of an intermezzic character (as so many of the odes of Aristophanes), rather than the sign of an intermission.[46] But apart from this, the part still left to the chorus is exceedingly instructive for our present purpose. The choreutae mingle freely with the actors, both in the prologue and in the exodos, and take a spirited part in the conversation—an excellent illustration of the point on which I insisted in the chapter on tragedy, that a chorus whose songs are mere interludes is likely to be given a lively part in dialogue and action. Böckh, *Staatshaushalt.*, p. 493, says of the *Plutus*: "So blieb der Chor nun als handelnde und redende Person stehen." For the stage question the "*handelnde Person*" is all-important.

The comic poets of the fourth century, even the best of them, were by no means averse to taking a model from the fifth century and adapting it to the taste of the time. But some of the most successful plays of the old comedy were so interwoven with allusions to current events and to contemporary personalities that many of the brightest hits would have been lost upon an audience a decade or two later. We can readily understand why they were not reproduced in later times. And yet the impression they made upon the generation that heard them, and the fame of their success that lingered still in the next succeeding generations, can be paralleled only by the success and influence of Euripides and Menander. As the popular demand for the masterpieces of tragedy resulted in the admission into the programme of the Dionysia of a παλαιὰ τραγῳδία alongside of the καιναί, so we might

[46] So RITTER, *de Aristoph. Pluto*, Bonn, 1828, p. 11 ff. He accepts the tradition of the abolition of the choregia, but thinks that the poet or volunteers would have supplied the necessary money. His opinion on the late chorus is sound: Talem chorum qualem in Pluto uidemus, in multis tum mediae tum nouae comoediae fabulis fuisse iudico. Ritter is one of the few who have properly distinguished the function of the chorus in the stasima from its part in the action. *Cf. p.* 24.

The Tischendorf fragment of Menander, KOCK, *C. G. F.* III, no. 530, also bears the inscription Χοροῦ, thus confirming the statement of the *Vita Aristoph.*, § 11, though of course the sign is due to a grammarian, and not to the poet.

reasonably expect to find in the fourth century some echo of the famous comedies of former times. But no *παλαιὰ κωμῳδία* appears in the didascalia of the fourth century, and in the third the play selected is always by a poet of the new comedy. However, on this evidence alone, is not the assertion too sweeping that no play of the old comedy was ever reproduced? Is not the only safe inference that, so far as we know, no fifth century comedies were reproduced as *παλαιαί*? In order to be presentable at all many pieces would have had to be entirely revised. Now it was the custom in Athens for a poet to produce as new, often under a new title, an old play of his own or of another which he had revised, no matter how slightly. In fact, in this way alone was he allowed to bring out an old play, in the fifth century at any rate. It often happened in the fourth century that a poet revised and reproduced under his own name a successful piece of a rival. So Alexis revised the *Ἄντεια* and *Ἀλείπτρα* of Antiphanes and the *Ὁμοία* of Antidotus, Epicrates the *Δύσπρατος* of Antiphanes, while both Alexis and Ophilio plundered Eubulus, etc., etc.[47] Sometimes the changes were trifling (*cf.* Ath. 3, 127 B: *ἐν ὀλίγοις σφόδρα*). Now such a play as the *Acharnians* would require a complete rewriting, but this is no reason why it should not have furnished the ground-plan of a new piece. The *Peace*, *Clouds*, and *Plutus* were much changed in their second editions, and yet essentially the same. The *Frogs* would have needed little editing to make it as fresh as when first reproduced. These pieces are successfully brought out on the modern stage, with all their obscure allusions. When, therefore, we find among the titles of the middle comedy many that are identical with those of the old comedy, and detect under new names the subjects and treatment of old plays, what supposition is more reasonable than that we have in them the vestiges of the old comedy, exactly as we refer a play of Plautus back to the new comedy? This is hypothesis, but it accounts for the facts better than the other hypothesis, which leaves a surprising phenomenon unexplained.

It seems to me not too daring, therefore, to suggest, for example, that the *Εἰρήνη* of Eubulus, the *Ἱππεῖς* of Antiphanes, the *Πλοῦτος* of Nicostratus,[48] the *Λήμνιαι* of Alexis and Antiphanes, bore a close

[47] MEINEKE I, 31 f.; KAIBEL in *Hermes* 24, 44.

[48] So KOCK, *C. G. F.* II, 226.

relationship to plays of Aristophanes, and that the Κένταυρος of Antiphanes was modelled on the Ἄγριοι of Pherecrates. Probably a still commoner form of borrowing was the adaptation to a new set of characters of an old conception, of which the Ἰχθυες of Archippus furnishes an excellent example. The *Birds* of Aristophanes undoubtedly suggested the plot and its treatment. A chorus of fishes replaces that of birds. Remarkable similarities are pointed out by Kaibel, *Hermes* 24, 49 ff. Though in point of time Archippus belonged rather to the old comedy, yet, as Meineke says (I, 205), the Ἰχθυες is entirely in the manner of the middle comedy. In like manner the Νῆσοι of Archippus was a free imitation of the Πόλεις of Eupolis, to which the Πόλεις of Alexandridis also probably owed more than its name alone. If our fragments were more extensive we should undoubtedly find confirmation for these conjectures, and many additions to the list of certain cases.

The middle comedy was much given to parodying the old tragic poets, especially Euripides. If the spirit of Aristophanes descended to his successors, they did not fail to ridicule the choruses, as well as the ethics and philosophy of their victims. That this was in fact the case is shown by the *Orestes* or the *Orestautocleides* of Timocles, a parody probably of the *Eumenides* of Aeschylus. In the one fragment still preserved (Meineke III, 608; Kock II, 462) a chorus of harlots is seen surrounding the new Orestes: *περὶ δὲ τὸν πανάθλιον εὕδουσι γρᾶες, Νάννιον, Πλαγγών, Λύκα, κτέ.* The trial is held in the Παράβυστον, and the court is composed of the Eleven. The *Bacchae* of Antiphanes, probably after Euripides, would have been tame without a Bacchic chorus, and a Bacchic chorus could not easily become a mere "umbra veteris chori." Lastly I may mention the lively chorus in the *Trophonius* of Alexis—a play which seems to have been in the manner of the new comedy. The Boeotians who form the chorus are expected to vindicate themselves against the charge that they are good for nothing but to eat and drink, and finally receive the command: *γυμνοῦθ' αὐτοὺς θάττον ἅπαντες, ut ad saltandum habiliores euadent*, as Meineke observes (III, 491). Now since Alexis was active as a poet from *ca.* 368 to 286, and belonged almost as much to the new comedy as to the middle, this chorus from a

play produced certainly during the last half of the fourth century should have no little weight in favor of my contention.

In view of these considerations the opinion of Bernhardy (*Grundr. d. gr. Litt.* II, 2, p. 676), that, although more than half of the poets of the old comedy lived on far into the period of the middle comedy, yet there was no organic connection between the middle and the old, seems preposterous, and the claim of Fielitz, that the middle comedy really belonged to the new, is in contradiction to both tradition and fact. As to the character of the chorus in this intermediate period, while I grant that it steadily diminished in importance, especially as regards its melic functions, and especially toward the end of the fourth century, yet I trust that I have been able to show that it exhibited external characteristics that might actually be called Aristophanic. The scanty remains do not furnish proof of this in abundance, and yet one may fairly claim at least that the chorus of the middle comedy should be taken into consideration in the discussion of the stage question.

The question of the chorus in reproductions of old tragedies does not require a separate discussion, if, as I believe, it held its place in new tragedies down to a very late period. We know that almost every one of the extant plays of Euripides were brought out at the time of Lucian and Plutarch (Welcker, *Gr. Trag.* 1313 ff., Schultze, *N. Jahrb. f. Phil.* 1887, 117 ff.). And yet they without exception demand that the chorus should be in easy and intimate connection with the actors. In the multitude of references there is only one to warrant the supposition that they were ever given without their choruses, or so changed that the chorus could have been separated from the actors by a Vitruvian stage. This exception is Dio Chrysostom 19, 487 R, who speaks of the omission of *τὰ περὶ τὰ μέλη*. But Welcker has shown (*l. c.* p. 1319) that this passage refers only to the tragic recitations at minor festivals. At such a recitation, however, it was quite as possible that the choral parts should be selected and the dialogue omitted; as when the actor Jason and his choreutae performed a part of the *Bacchae* of Euripides before the Armenian king after the death of Crassus (Plut. *Crassus* 32), and when Satyros of Samos gave at Delphi a *κιθάρισμα* from the same piece

(*Bull. Cor. Hell.*, 1894, 85, where Couve rightly draws this inference from the mention of the lyre). Our present texts afford abundant proof that actors tampered freely with passages which would cause them trouble to perform, but not a shred of evidence that it was found necessary to alter the parts of the chorus. On the other hand, a passage in the *Iphigenia at Aulis*, which is generally recognized as interpolated (*v.v.* 615 ff.), requires the intermingling of the chorus with the actors. Christ (*Sitzungsber. d. bayr. Akad.* 1894, p. 17) calls for proof that the *Orestes*, for example, was ever reproduced after the fourth century. But this very play furnishes the clearest example of an actor's interpolation (1366–8, schol.) which was surely made a long time after the law of Lycurgus for protecting the text of the dramatists was passed. The Roman tragedy also gives evidence that the chorus in the Greek still remained. This applies, of course, to the production of tragedies in the city theatres at important festivals. The evidence of inscriptions weighs more and more in favor of this view. One cannot emphasize too strongly the fact that in Rhodes in the first century before Christ a complete tetralogy of Sophocles, satyr-drama and all, was reproduced. Nor is there any reason for believing that this was an exceptional occurrence. Finally it should be mentioned that the late writers on music were still familiar with the choral parts of classical tragedy, evidently from the theatre (Wilamowitz, *Herakles* I, 181, note 18).

In conclusion I may summarize my argument as follows: The theory that at the end of the fourth century the actors were elevated from their former position to a stage ten to twelve feet high is untenable, because (1) the chorus in tragedy, though perhaps less correctly handled by the later poets as regards its connection with the plot, was still regularly brought into close contact with the actors down to at least the end of the Roman republic; (2) the satyr-drama with its chorus flourished still in Roman times; (3) the chorus in comedy continued into the third century, meanwhile retaining its connection with the action; (4) the intimate relation of the chorus to the action in the old tragedies of the fifth century was not changed in later reproductions. The continuance for the longest time of the external functions of the

chorus was perfectly natural. The principal cost of the old chorus was in the training for the orchestic and melic parts. The least expensive and the most practically dramatic function was the last to be given up. The erection of the low stage of Nero in the theatre at Athens was the first outward sign of the diminution of the chorus in one of its functions. From that time on it took its position on the stage as in the Roman theatre. Up to that time it had occupied the level of the orchestra with the actors.

EDWARD CAPPS.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.

A TEMPLE IN ERETRIA.

[PLATE XVIII.]

In the excavations at Eretria last spring we had the good fortune to uncover the foundations of a temple, the existence of which was not then known to archæologists. On the very first day of our work, led by some hewn stones protruding from the bushes, we came upon a broad platform, and so shallow was the earth over it—from one to two feet—that by the evening of the third day we had it entirely laid bare. At the end of a week we had dug all around it a trench about three feet wide, down to the bottom of the foundation, and had cleared out the main opening in the platform. This platform shape made us doubtful about the nature of the building which stood on such a foundation. It did not seem to conform to the usual shape of temple foundations. Bötticher and Michaelis,[1] to be sure, speak as if the foundations of temples were usually solid platforms. But existing remains show simply lines of foundation-walls under the supporting members, the colonnade and the cella walls. So the substructure of the Parthenon is represented in the cut accompanying an article by Dr. Dörpfeld in the *Mittheilungen des deutschen archaeologischen Instituts*, 1892, p. 177.

Again, the great breadth of the platform in proportion to its length (12.50 m. × 23.05 m.) was a stumbling block. But we reflected that after all what we had discovered was not a stylobate, but that above this must have lain at least two, and perhaps three, courses, to form the steps of the temple, besides the usual *euthynteria*. Subtracting one meter all around, *i. e.*, reducing

[1] BÖTTICHER, *Akropolis von Athen*, p. 56. MICHAELIS, *Der Parthenon*, p. 5.

the length two meters and the breadth two meters, would give as result a breadth *less* than one-half the length, instead of more than half, which would not be very abnormal for a temple. In the reconstruction of the temple in the plan (Plate XVIII) by W. Wilberg, .35 m. is allowed as the width of each step, which, even with a slight allowance for the *euthynteria*, would leave a breadth of somewhat more than half the length. The ratio of breadth to length of the stereobate, as it stands, is about the same as in the temple of Asclepius at Epidaurus. This, with dimensions 13.20 m. $\times$ 24.50 m., affords a ratio of .5388, while the Eretria stereobate affords a ratio of .5423, being slightly broader. The two temples were of very nearly the same size, and not very much smaller than the Theseium or the Athene temple at Aegina. In the plan the temple is restored like the Asclepius temple,[2] with six columns at the ends and eleven at the sides, and an allowance of 2.05 m. as intercolumnar space. Both these temples lack the *opisthodomos*, which may account for their shortness.

Similar in proportions were the Metroüm at Olympia, the temple of Athene at Priene, and the temple discovered by Dr. Dörpfeld at Lepreon in April, 1891.[3] These proportions seem to have been usual in the fourth century. The Heraeum at Argos, though falling in the latter part of the fifth century, approaches these proportions with a ratio of breadth to length of .5008,[4] while the Theseium stereobate has a breadth considerably less than half the length.

The great breadth of the foundation at the sides of the cella, which gives the appearance of a platform to the foundation, is explained by the consideration that the cella wall comes so near to the colonnade that it was easier to make a common foundation somewhat broader than usual, than to make two separate foundations. This arrangement, however, is believed to be unique in existing remains.

The other two openings in the platform are so situated as to conform to the position between the colonnade and the *pronaos* and to the *pronaos* itself, which is a strong confirmation of the

[2] KABBADIAS, *Les Fouilles d'Epidaure*, Plate VI.
[3] *Mitt. d. deutsch. arch. Inst., Athen*, 1891, p. 259.
[4] AM. JOUR. OF ARCH., VIII, p. 216.

view that we have here the foundations of a temple. The foundation is a massive one, composed of three courses of limestone blocks from the acropolis near at hand. Each course is .46 m. thick, making a total depth of 1.38 m. The blocks are not arranged in any order of "stretcher and binder," but are large pieces of very various lengths and breadths, carefully fitted without clamps. Not a single stone of any of these courses is displaced, whereas only a few stones of another course remain over the opening in the *pronaos*. These latter may be classified as breccia; but the only difference between them and the limestone blocks is that they hold more pebbles, and are thus of a firmer texture. Both come from the acropolis.

Close to the northwest corner of the temple, diverging from it as it proceeds southward, about three feet below the surface of the platform, was a water conduit of round tiles, about six inches in diameter. We traced this far enough back to the north of the temple to conclude that it comes down from the valley between the acropolis and the hills to the west of it. Another branch of the same conduit appeared near the northeast corner of the temple, but at the level of the platform. A shaft was discovered close to the temple, on the south side at the east end (A), not squared with the temple, the side most nearly parallel to its south side diverging from it at an angle of about 25°. The sides of the shaft are made of carefully hewn stones in six courses, each .50 m. thick. The two lowest courses are lacking on the side away from the temple, to give place to a lateral passage about 1.30 m. high, not faced with stone, but arched out of the compact earth, and now partly filled with accumulated soil. This we slowly cleared out to a distance of about sixteen meters. It took a southwesterly direction from the south face of the temple, curving slightly to the right. To get a vent-hole for the one man who worked in the passage we dug a shaft 8.7 m. out from the temple, and struck at the same time the passage and a flight of six steps leading up over it toward the temple. These steps seem to mark on the south side the *peribolos* of the temple, which on the west side must have come very near to the city wall, while on the north side the precinct was bounded, in part at least, by a long line of choregic monuments. It was impracticable for us to lay bare the

peribolos wall on the southern side, as it ran under our dump heap, which had become rather large.

The object of the shaft and the passage gave rise to lively discussion among the workmen and the inhabitants of Eretria generally. As there were carefully cut foot-holes along two sides of the shaft, the prevailing opinion was that it led to a subterranean treasury, and every man wanted to work in the passage. The skull of a cow or an ox found at the bottom of the shaft suggested to us at first the idea of a sacrificial pit; but the sacrifices were doubtless performed at the altar in front of the temple. The most probable explanation is that we have here a conduit to carry off the rain water from the temple. The significance of the foot-holes is, however, in that case not quite clear.

To the east of the temple, and adjacent to it, are two statue bases (C, C), and at a distance of 13.65 m. a foundation (B) which was a puzzle to the American excavators of 1891, and was at that time considerably pulled to pieces in the attempt to ascertain whether it was a tomb or the foundation of a building. This now, from its connection with the temple, appears to be an altar. It is not in the axis of the temple; but this is not surprising. The altar of Athene on the Acropolis and that of Dionysus near the Athenian theatre were far from being in the axes of their respective temples, though not so far from it as the altar of Zeus at Olympia, while the altar before the Pythion at Icaria was so nearly in the axis of the temple that the deviation seems designed as here.

All around our temple and over the main opening was a layer of limestone almost as hard as the blocks themselves, which were rather friable. Its lower surface was about six inches above the level of the stereobate. It varied in thickness from about a foot to three or four inches, being thickest on the north side. It was also thick on the east side, where it grew gradually thinner as it receded from the temple, but continued all the way to the altar. On the north side we traced it back about twenty feet. At first we thought it the stone of the building crumbled in a great conflagration which obliterated all the architectural members, like the columns and entablature. We were led to this belief by the striking amount of charcoal which we found in various places,

but especially in the large opening. Often a large lump of charcoal was held in the mass of stone, and in the big opening it was found with bits of bronze clear down to the bottom of the walls. But since the charcoal could not get below the stone pavement of the cella in a fire which destroyed the temple, this charcoal must have come from an earlier fire, possibly from the one which followed the capture of Eretria by the Persians.

The view of Dr. Dörpfeld is probably correct, that the layer was made up of stone-cutters' chips, solidified perhaps on the north and east sides, where there would be much passing, with the aid of cement. The disappearance of the columns and entablature, and of the upper layers of the platform is easily enough accounted for without calling in the assistance of a catastrophe. They lay on the surface, inviting plunder. Especially if these were marble columns, they would speedily find their way to lime kilns, such as yawn now near the theatre. If the Eretria of the present day were a place where there was much building going on, it would take vigilant supervision to prevent the foundations which we here found, poor material as they are, from being carried off piecemeal. Since I made the acquaintance of Eretria, in 1891, a considerable part of the acropolis wall, with one venerable looking tower,[5] has gone into the lime kiln.

We have made a substantial contribution to the topography of Eretria. The future traveller, instead of speaking of "Eretria with its theatre," must speak of "Eretria with its theatre and temple." In the case of such an important city, and one whose history interests us deeply, while no ancient writer has given us any description of it, this is more of an addition to our archæological knowledge than the discovery of a whole town in Macedonia or Cappadocia.

The first question suggested by a survey of these foundations is whether they can be identified with those of any other temples known to have existed in Eretria. We naturally wish to give the foundling a name. Here we feel the lack of Pausanias, by whom excavators elsewhere have profited so much. We must guess.

In going to Eretria my one specific and outspoken object was to find a temple of Dionysus behind the stage building of the

[5] It is the one which appears in the AM. JOUR. OF ARCH., Vol. VII, Plate XVI.

theatre. We found a temple there, but are not disposed to count this as settling the case. What we wanted and did not get was proofs in the shape of inscriptions.

But it will be readily granted that when a temple and altar and theatre seem to make one complex, the presumption is that the temple and theatre belong together (the northeast corner of the temple is only 19 m. from the southwest corner of the stage building). Also it will be granted that if Dionysus was worshipped at all in Eretria, the theatre probably belonged to him. That Dionysus was worshipped in Eretria, and had a temple there, is certified by inscriptions. *CIG.*, No. 2144, speaks of the ἱερεὺς τοῦ Διονύσου, πομπὴ τοῦ Διονύσου, and χόροι τοῦ Διονύσου. Another inscription, in honor of Theopompos, given in Rhangabé, *Ant. Hell.* II, p. 266 ff., also speaks of the πομπὴ τοῦ Διονύσου. These inscriptions are generally thought to belong to the Macedonian or Roman period. But the πομπὴ is thought of as something existing, and not then first introduced. Rhangabé hesitates to put the latter inscription into Roman times, and inclines, in spite of the late appearance of some of the letters, to put it back of the Macedonian supremacy. It indicates a time of freedom and prosperity. Eretria votes to erect statues to one of her own citizens, who has presented the city with a fund of 40,000 drachmas, to buy oil for the athletes in the gymnasium. Perhaps the time between the Peloponnesian War and the battle of Chaeroneia, when her coffers were no longer drained by Athens for the adornment of the Acropolis, was the really wealthy period of Eretria. It is not unlikely that the theatre in its second period, *i. e.*, substantially in the form in which it has come down to us, and the temple, which seems to go with it, were built at this time.

But just where we get our explicit information of a temple of Dionysus our difficulty begins. The first of the inscriptions referred to comes from Cyriac of Ancona, who says that he saw it on a large and finely wrought piece of marble in a vineyard, where there was to be seen a temple of Dionysus fallen into decay from age.[6] Can we believe that Cyriac, nearly five hundred years ago, saw our temple before it had disappeared from the face of

[6] *In agro vineorum, ubi templum Bacchi collapsum vetere conspicitur, in magno et ornatissimo marmore.* BOECKH, under *C I G.* 2144.

the earth? One would like to believe it. As far as the vineyard is concerned, we could believe that where only bushes now abound there were once flourishing vines. A bean field came nearly up to the edge of the theatre at the time of our excavations. But unfortunately for this view Cyriac gives another Eretrian inscription which he says he found *in summa arce, apud amphitheatrum.* Here he must mean the theatre, which, after the destruction of the city, must always have been the conspicuous object amid the remains. And if Cyriac located one inscription by its nearness to the theatre he would almost surely have noted the other by the same method; and if he located the acropolis itself by its nearness to the theatre, much more would he have noted the nearness of the temple to the theatre, if he meant our temple. In order, then, to save our temple for Dionysus, we must proceed on what is perhaps not a very violent supposition, *viz.*, that Cyriac saw the inscription in question near a temple somewhere in the fields, and as the inscription began ὁ ἱερεὺς τοῦ Διονύσου, and treated of a Dionysiac festival, jumped to the conclusion that the temple was a temple of Dionysus. The stone, however, may have been carried some distance. The epithet "magno" is not to be pressed. It was probably a *stele* with mouldings and perhaps figures as a heading. The long Chaerephones inscription, *Eph. Arch.* Β'. p. 317 ff., which was set up in Eretria in the temple of Apollo, was found in Chalcis.

The suggestion of two Dionysus temples is open to more serious objection. Eretria probably did not have such a profusion of temples, as Argos did for example, that several could belong to one divinity.[7]

The possibility that our temple does not belong to Dionysus must be conceded. The proximity to the theatre is not absolute proof. Indeed, it can hardly be taken for granted that every theatre is a theatre of Dionysus. This would hardly pass without question for the theatres of Epidaurus, Delphi and Dodona. We must then consider the claims of other candidates.

There is no divinity so prominent in connection with Eretria

[7] Another inscription, published by F. Lenormant in *Rhein. Mus.* XXI, p. 533, mentions ὁ ἱερεὺς τοῦ Διονύσου. He gives as the place of finding simply "Eretriae, in marmore mutilo."

as Artemis. She was a great divinity in Euboea generally, as is shown by coins. Her temple at the northern end of the island, it will be remembered, gave the name to the first great naval battle of the Persian War. Her Eretrian temple was the place where important inscriptions are to be set up, *e. g.*, that one on which the Eretrians tell of their greatness and their numbers,[8] and the stone on which the compact in regard to the Lelantine War was inscribed.[9] Here also, was to be deposited the Theophrastus inscription.[10] It was not merely the principal temple of Eretria. It was, according to Livy (XXXV, 38), a rendezvous for the inhabitants of Carystus also. Probably it was the important temple of Euboea, which delighted to honor the Delphic trinity—Apollo, Artemis and Leto—with a preference for putting the virgin goddess at the head of the list.[11] It is the only temple of Eretria mentioned by Strabo, and is frequently mentioned in inscriptions.

But this temple, called the temple of Artemis Amarysia, is thought to have been not in Eretria itself, but seven stadia outside of it, at a village called Amarynthos.[12] Strabo, to be sure, does not *say* that the temple was in Amarynthos.[13] Artemis might have been named Amarysia while worshipped in Eretria, just as naturally as she was so called when worshipped at Athmonon in Attica, where she has left a trace of herself in the modern name Marousi.[14]

The inscription *C I G.* 2144b, in honor of Phanokles, found within the city limits, speaks of Artemis without the epithet Amarysia, and inasmuch as the inscription provides that the *stele* on which it is inscribed shall be set up in the temple of Artemis, Boeckh supposes that there was a second temple of Artemis within the city also. This is of course possible. But the temptation would lie near to seek in our temple, which was in a con-

[8] STRABO, p. 448. [9] *Ibid.*

[10] RHANGABÉ, *Ant. Hell.* II, p. 266 ff., No. 689.

[11] ULRICHS, *Reisen*, II, p. 249. RHANGABÉ, *Ant. Hell.* II, p. 782, No. 1232. BURSIAN, *Geog. Griech.* II, p. 423. *Eph. Arch.* 1892, pp. 141, 154bis, 158.

[12] STRABO, p. 448.

[13] πομπή in Strabo, p. 448, does not necessarily imply a march *out* from the city any more than the πομπή of Dionysus, above referred to, or the πομπή at the Panathenæa. The Eleusinian πομπή must not prejudice us.

[14] PAUS. I, 31, 5. LOLLING in *Mitt. d. deutsch. arch. Inst., Athen*, 1880, p. 289.

spicuous part of the city, near the theatre, the foot of the acropolis, and the gate leading out to Chalcis, the one temple of Artemis Amarysia, were it not for the inscription published in the *Eph. Arch.* B′, p. 381, No. 417 (Cauer, *Delectus*, No. 533), which prescribes that the Eretrian copy of the treaty between Eretria and Histiæa shall be set up in Amarynthos (Ἀμαρυνθοῖ). This makes it as good as certain that the temple of Artemis Amarysia, elsewhere mentioned as the place for depositing important inscriptions, is here intended, and so was not in Eretria itself. As our temple is not likely to have been the temple of Artemis, how gladly would we believe that the temple among the vines, which Cyriac saw and took to be the temple of Dionysus, was really the temple of Artemis Amarysia. We could make ample amends to Dionysus by giving him the temple which we have just discovered.

But so long as a shade of doubt remains concerning the proprietorship of Dionysus, we may mention another candidate. A temple of Apollo *Daphnephoros* is mentioned in the Chaerephones inscription[15] as a place for setting up the *stele*, and since this temple is named in line 10 as the place where the Eretrian citizens are to take the oath, it is perhaps fair to presume that it was in the city and accessible. One inscription[16] containing a specification that it be set up in the temple of Apollo *Daphnephoros* was found in Eretria itself, and so corroborates this view.

At last we have a candidate against whom it cannot be alleged that he was an outsider. But it must be confessed that there is no positive proof. The same may be said of the claims of Demeter, who appears to have been worshipped at Eretria, if we may judge from a reference to the Thesmophoria in Plutarch, *Quaestiones Graecae*, 31, where the question is propounded: "Why do the Eretrian women roast their meat, at the Thesmophoria, not at the fire but in the sun?"

What other temples the Eretrians had which are not mentioned by authors or inscriptions which have come down to us we cannot tell. On this consideration there might be many candidates, but we come back in the end to our first suggestion, *viz.*, that a

[15] *Eph. Arch.* B′, p. 317, No. 404a.

[16] *Eph. Arch.* B′, p. 384, No. 418. This temple is also mentioned in inscriptions published in the *Eph. Arch.* 1892, pp. 128, 134. Cf. also PLUT. *Pyth. Orac.* 16.

temple so closely connected with the theatre was in all probability a temple of Dionysus, and if it be deemed rash to set aside the testimony of Cyriac of Ancona, we might postulate a second temple of Dionysus with almost as much show of reason as Boeckh had for postulating a second temple of Artemis.

In the excavations about the temple we found very little pottery. One piece of a *lekythos*, however, with black figures on a white ground, seems to indicate a date before the Persian Wars.[17] In contrast to this is a small marble head found under the layer of poros covering the main opening in the temple. This cannot well be earlier than the fourth century. If it be a divinity it is most likely an Aphrodite.

In the dump heap we found a torso of a terra-cotta siren or harpy, apparently a rattle for a child. It was covered with a coating of stucco, and was probably painted. This might belong to almost any age.

Of the close connection between the altar and the theatre, which may help to afford an explanation of the enigmatical passage under the stage building, Professor Capps will treat in his article on the theatre.

Near the line of bases extending westward from the theatre (D D D D) were found four fragments of inscriptions, no one of which affords a whole name. But what is more important, one affords ΘΗΚΕ and another ΗΥΛΕΙ. This makes it certain that the bases belong to choregic monuments, like those at Athens,[18] and that this theatre was the scene of musical or dramatic contests. The inscription containing *ηὐλει*, and probably all the others, is from the fourth century.

EXCURSUS ON THE LOCATION OF THE TEMPLE OF ARTEMIS AMARYSIA.

Since the location of the temple of Artemis Amarysia is the burning question of Eretrian topography, and since we made the

[17] E. A. GARDNER in *Jour. of Hell. Studies*, 1894, p. 180 ff. Unfortunately the exact place of finding was not noted. But we have at least an additional token that the pre-Persian Eretria was on the same spot as the later city. *Cf.* AM. JOUR. OF ARCH. VII, p. 241.

[18] REISCH, *De Musicis certaminibus*, p. 84 ff. HARRISON, *Mythology and Monuments of Athens*, p. 268 f. The bases and architectural fragments Professor Capps will describe.

only excavations yet made with a view of ascertaining its location, it may seem proper to add a few words on this subject.

Strabo's seven stadia have been measured by different writers in nearly all the different directions from Eretria except out into the deep sea; and Stephanus of Byzantium, who says Amarynthos= *νῆσος*, seems to invite us to that saltum mortalem. Under such circumstances it is not a little tantalizing to hear Wilamowitz say: "Möchte bei der Artemis von Amarynthos rechtbald gegraben werden";[19] and again: "An diesem Orte wären Ausgrabungen recht sehr am Platze."[20] Yes, if we only knew where the place was.

Considering that Eretria's territory opens out toward the east rather than the west, we chose that direction, taking also into account Lolling's suggestion[21] of a possible identification of Amarynthos with a supposed Old Eretria, which, according to Strabo,[22] lay to the east of the later city.

It was the village of Amarynthos, and not the temple, which Strabo[23] gives as seven stadia distant from Eretria; consequently we need not be exact about the distance of the spot selected for excavation. The hill called Kotroni lies not much in excess of seven stadia to the east, perhaps not at all if the measurement be made in a straight line across to the hills from the northeast corner of the acropolis wall. Kotroni, too, is as much of a *νῆσος* as that which figures in Herodotus' description of the battle of Plataea—as much of a *νῆσος* as one would be likely to find on dry land.[24]

At the southern foot of this hill lies one roofless church, which the owner of the land here says he built several years ago to take the place of an older one near by, fallen to ruin from age. From the ground on which the older church stood he had taken several inscribed marbles which he frankly confesses he had committed to the lime-kiln to make mortar for his house building. One of these, a *stele*, he had built into his house. It showed the initial letters of two names, Μ and Δ. He assured me that the inscrip-

[19] HERMES, XXI, p. 97.
[20] *Antigonos von Karystos*, p. 136.
[21] *Mitt. des deutsch. arch. Inst., Athen.* X (1885), p. 354.
[22] STRABO, p. 403. [23] *Ibid*, p. 448. [24] HDT. IX, 51.

tion ran Μῆνιος Δάφνιδος. This account looked hopeful; but two days' digging of trenches on this spot revealed the bed-rock at a very slight depth, while nothing but modern walls appeared. We found two inscriptions, almost at the beginning of our work, on plain *stelae*. These were simply the names

ΙΠΠΟΚΛΕΙΑ
and ΚΛΕΙΤΟΣ

We also noticed built into a wine-vat, and taken from the same spot where we dug, another epitaph running

ΠΑΡΑΜΟΝΟΣ
ΠΥΦΩΝΟ—

Could this be a stone-cutters' error for Πύθωνος?

Of course the temple may still lie within a hundred yards of the spot on which we dug, but we have done ample justice to our main reason for selecting this spot, viz., the testimony of the land owner.

One may perhaps now all the more readily lend an ear to those who strongly suspect that Strabo has erred or been made to err by bad copying, and so seek the temple much farther away.[25]

Not until excavations have been undertaken at every promising point near Bathya, and at reasonable distances in the other direction, toward Chalcis, should we despair of locating the temple.

Athens, RUFUS B. RICHARDSON.
March, 1895.

[25] ULRICHS (*Reisen*, II, p. 249) is inclined to seek it at Bathya, two hours to the east of Eretria. Inscriptions point to something like this. *Cf. Eph. Arch.* Α′. p. 1836, No. 3524. An old church near Bathya is mentioned as the place of finding. What is more to the point, the fragment of the Eretria-Histiaea treaty, above referred to, was said by an informant, whom Eustratiades (*Eph. Arch.* Β′, p. 382) regarded as more trustworthy than the setter of the stone, to have come not from a place near Orcos, but from Bathya.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.

EXCAVATIONS IN THE ERETRIAN THEATRE IN 1894.

[PLATE XIX.]

The work of excavation in and about the theatre at Eretria during the month of May, 1894, was entrusted by the Director, Professor Richardson, to Professor Phillips and myself. While the former was engaged in uncovering the temple, the workmen under my direction cleared away the earth from about the stone structure to the southwest of the scena-building (B), and sank trial trenches immediately behind the scena. The stone structure proved to be an altar. No indications were found that a stoa or other accessory buildings had ever existed in this part of the Dionysus precinct. During the second week our workmen were all employed on the temple. Then a trench was sunk from the northeast corner of the temple in the direction of the theatre. Foundation walls were found, which were recognized at once as belonging to the west wing of the scena, restored conjecturally in Mr. Fossum's plan (AM. JOUR. ARCH. VII (1891), PLATE XI). Much encouraged by this discovery, we employed from this time on as many men as could work to advantage in the narrow space south of the ruins of the cavea and west of the scena. The foundations lay so near the surface and progress was so rapid that we reached the west parodos several days before the close of the campaign. Unfortunately the point about which the greatest interest centered, the parodos itself, was so deeply buried under the mass of heavy stones and earth that had fallen at the collapse of the sustaining wall of the cavea, that only a beginning was made of a work of which the completion might prove of considerable importance for the understanding of this interesting theatre.

The west wing of the scena (PLATE XIX). The ground plan of the west wing of the scena has been completely recovered. That of the east wing may now be safely restored in its general outlines to correspond, since the dimensions of length and depth are the same. The rear wall of the west wing extends 10.50 m. from the point where it leaves the outer wall of the main building, then bends to meet the wall of the parodos, making an obtuse angle at the southwest corner. The foundation course alone remains, laid almost on the surface and carelessly put together of irregular stones of different material. Judging from the inferior workmanship, this wing must be of very late construction. As the wall approaches the parodos, the foundations go deeper, are heavier and more carefully fitted. The depth at the entrance to the parodos is 1.68 m. The front wall of the west wing is formed by a continuation of the *scaenae frons*, which runs parallel to the wall of the parodos.

In the irregular quadrilateral space enclosed by the walls just described are various remains. One meter from the main building is a short fragment of a transverse wall, and 2 m. further another, of which 1.70 m. are preserved. Then comes a circular structure (marked E in the plan) 3.38 m. in diameter, which breaks into the boundary wall at this point. Of this two courses remain; the lower, formed of small stones closely laid in a circle, and above it a course of poros cut to a circle on the outside and forming a regular hexagon within. This probably served as a foundation for a circular building of some sort, possibly a choregic monument. There is no evidence of its use as a cistern, such as have been found in several theatres in connection with the scena building.[1] A little further to the west is a base 1.97 m. square (F in plan), formed of four slabs of black marble neatly dressed and joined with Z clamps. The orientation of this base, which forms an angle with both of the adjacent boundary walls, but is in alignment with the stylobate which extends to the westward, prompts the suggestion that this wing was open on the south and west, at least that part of it which lies beyond the second transverse wall. In this case it was rather a portico than an enclosed room. The

[1] MÜLLER, *Bühnenalterthümer*, p. 38, n. 2; *Papers of the American School* (1886-90), p. 14.

shallow and weak foundations lend further probability to this suggestion. If this is true, the large base supported the first and most imposing of the long series of monuments described in the next paragraph. Lastly, in this wing lies the peculiar structure found in 1891, considerably below the level of the other remains. Its purpose is still unexplained. The hypothesis advanced by Mr. Fossum (*l. c.* p. 253), that "here may have been ramps ascending to the proscenium, side by side with the parodos into the orchestra, as at Sicyon and Epidaurus," must be rejected. In the first place the parallel walls are too close together (width 0.46 m.) Besides, the conditions at Eretria are entirely different from those at Epidaurus and at Sicyon. The level of the scena (or proscenium) is reached from the outside without the need of ramps or steps. Ramps were necessary only when the scena or proscenium was elevated above the surrounding ground.

The stylobate. Westward from the southwest corner of the west wing extends in an oblique direction a stylobate of poros 20 m. long and 1.20 m. wide. Standing upon this foundation at irregular intervals were found four marble bases of various size and workmanship (D D D). That these bases were for the support of columns is shown by the fact that all but one have circular sinkings in the centre, from one of which a fragment of an unfluted column still projects. No two of these bases are alike. Three others lie beyond the stylobate, resting on the earth, but *in situ*, forming a line that curves gradually to the north as if to encircle the cavea. Still another was found north of the stylobate, but it probably rested upon it originally. The last of the series is also the largest, 1.28 m. square at the bottom, continuing, after an inset, .91 m. square. Some of the other bases may also have borne square pillars. It is clear that here was no stoa, which we had expected to find, but a series of commemorative monuments and *ἀναθήματα* belonging to the theatre precinct. Fragments of choregic inscriptions found here place this beyond doubt. Many fragments of unfluted monolithic marble columns were found between the stylobate and the theatre, but they varied in size and could not have belonged to a colonnade. A very large shaft of this kind was found lying in such a position as to suggest that it had fallen from the cavea. It may have belonged to the doorway

of the upper entrance to the auditorium, set in the *ἀνάλημμα*. A number of copper coins, fragments of capitals, mouldings, and architectural terracotta fragments were also found here.

The πάροδοι. The wall of the west parodos was uncovered, but not the parodos itself. The wall is not so well preserved as that of the east parodos, which was excavated in the spring of 1892. Hence it will be necessary to mention the most interesting characteristics of the latter in order to illustrate and explain the former.

The east parodos is 4.80 m. wide at the end next to the orchestra. The parodos wall was of marble slabs, neatly dressed and joined, resting on a foundation of poros. The marble blocks are in position only toward the outer entrance. The poros foundations are laid on an incline, as is the *ἀνάλημμα* opposite. Three meters from the entrance a marble sill 1.25 m. wide is still in position. It is dressed only on the upper edge, the rest having been covered by the earth of the floor of the parodos. The floor level at the sill is 1.25 m. above the orchestra. From the sill to the entrance the former earth-line may be distinctly traced on the marble, which is dressed only above this line. This rough line slopes upward from the sill to the cross-wall against which the parodos wall abuts, just reaching the level of the flat foundation stone of the former. This stone projects a little into the parodos, and shows a rough end, as if it had been broken off. It may have been a sill which lay at the entrance of the parodos. At any rate the original floor of the parodos at this point reached the level of this stone, which is 1.70 m. above the orchestra—a very considerable incline in a parodos 15 m. long. The original level of the ground east of the theatre cannot be ascertained, but it was probably not much higher than this.

The west parodos exhibits the same general characteristics. The poros foundation is preserved and several meters of the marble front. The foundation is not continuous, however, but stops 5.65 m. from the entrance, continuing .80 m. higher up. No sill was found in this wall, but it undoubtedly existed where this break occurs. From this point on, the slanting rough line on the marble is as distinctly marked as on the other side. Where it ends, the foundation stone of the cross-wall extended some .60 m.

into the parodos, but was cut away by the workmen, who thought it to be the layer of hard lime encountered around the temple. The level of the parodos floor at the entrance was 1.81 m. above the orchestra—a little higher than in the east parodos. The level of the ground outside is given by the stylobate—about 3.45 m. above the orchestra. If the same grade was continued, the parodos reached the outer level about half way down the stylobate. No traces of a door at the entrance to the parodos were found. In the accompanying plans (FIG. 38) I have indicated the earth-line on the face of the wall, the sills in the wall itself, and the inclination of the parodoi from the bend beyond the proscenium.

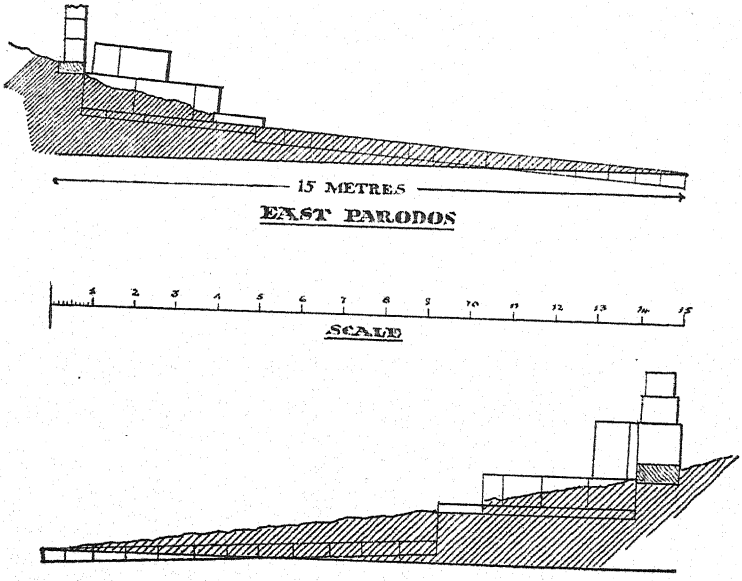


FIG. 38.—THE EAST AND WEST PARODOI.

These sloping parodoi confirm the explanation given by Mr. Fossum and Dr. Dörpfeld of the peculiar construction of this theatre. At the time of the old scena (fifth or fourth century) the spectators sat or stood on the almost level ground to the north. When the theatre was rebuilt the scena was left standing but enlarged, and the orchestra was hollowed out, furnishing the earth for the mound of the auditorium. The only alternative was

to haul the necessary earth from a distance, as at Mantinea, or to construct the auditorium of solid masonry. The existence of the temple near by precluded the removal of the theatre to the slope of the acropolis. The result was not only the sloping parodoi, but the elevation of the scena-building 3.46 m. above the orchestra. This would have been avoided only by the excavation to the same depth of the ground under the scena-building, which would have been costly and in many ways inconvenient. The result of this peculiar construction was that the chorus had to make a descent from their dressing-rooms before they could appear in the orchestra. What means were provided for this descent?

Means of communication between scena and orchestra. After the excavations of the first season the only connection that appeared between the dressing-rooms and the orchestra was the large vaulted passage under the scena. It was quite natural that this peculiar arrangement should be explained by the necessity of a means of communication between the upper and lower levels. Mr. Fossum, it is true, claimed that this was the simplest solution of the problem, the only other alternative being a flight of steps over the face of the proscenium, which was rightly rejected as impossible. But doubtless no one who has seen the theatre has been fully satisfied either with this explanation of the purpose of the huge and carefully built passage, or with the theory that the architect of the theatre consulted so little the convenience of the persons for whom he was building. For the entrance to the passage lies outside of the scena.[2] It would have been necessary for the chorus,[3] after donning their costumes, to leave the scena altogether, and, if their entrance was to be made from the parodos, to encircle the scena to the right or to the left; otherwise (the rare occurrence) to descend the steps back of the scena, pass through the passage, and appear through the central door of the proscenium. This is hardly conceivable. The purpose of the vaulted passage must receive another explanation. I can only suggest that it may have been used for the πομπαί of priests,

[2] This objection was pointed out by Mr. Gardner, *J. H. S.* 1892–3, p. 146, and by Mr. Loring, *J. H. S.*, Supplement 1, p. 94.

[3] Although this passage may have been constructed after the fourth century, there was just as much need as ever of providing for the chorus in tragedy and the satyr-drama.

choregi, public officials, actors, and choruses, who entered the theatre in pomp and circumstance at the festivals after the sacrifice at the altar.

The doors in the parodoi suggest what is at once the simplest, and, in my opinion, the actual solution of the main question. These doors provided for the entrance of the actors from the sides. But, for those who refuse to accept Dr. Dörpfeld's theory of the stage, they have no significance whatever unless they were to be used by the chorus for a like purpose. Hence there must have been corresponding doors in the front walls of the two wings. It will be seen that by such an arrangement the descent of 3.46 m. was made perfectly convenient even for buskined feet. By means of the sloping parodoi about 1.25 m. of this descent was accomplished. An equal amount could have been made by ramps in the wings sloping in the opposite direction and the balance by ramps or steps in the space between the parallel walls. Or, on the other hand, the whole remaining descent of something over 2 m. could have been accomplished by flights of steps in the wings or between the parallel walls. Further excavation might throw light on this question. Meanwhile it can hardly be doubted that in one of the two ways suggested provision was made for the descent of the *choreutae* from the dressing-rooms to the parodoi without the necessity of their going out of the building. On the comparatively rare occasions of their entrance from the central door (which, by the way, was utterly impossible in this theatre if the *proscenium* was a stage), the latter half of the descent was made between the parallel walls instead of in the *parodoi*.

The Eretrian Theatre and the Stage Question. So far I have avoided as far as possible all controverted points in the interpretation of this theatre, which has been called into evidence by both parties to the controversy concerning the elevated stage. I should not now go beyond the strict requirements of my report of the recent excavations had not the fairness of Mr. Fossum's report been called in question by Mr. Gardner (*J. H. S.* 1892–3, p. 146). He objects that Mr. Fossum, in his zeal to defend the new theory, entirely overlooked the fact that the elevated scena, opening directly upon the proscenium without a change of level, was a

strong argument for the use of the proscenium as a stage for actors. But Mr. Gardner seems to have entirely overlooked the fact that the chorus of fifteen persons had to descend to the lower level in any case. The descent of three additional persons involved no greater difficulty. One might as well bring against the old view the objection that the actors would have had to ascend from the dressing-rooms, which in most theatres were not elevated above the orchestra, to the high proscenium. The elevated scena at Eretria, therefore, can give no comfort to either party. On the other hand the tunnel in the orchestra gives an unanswerable argument for the appearance of actors in the orchestra. This argument cannot be set aside by showing how easy it would have been for actors to appear on top of the proscenium, nor by referring to the uncertainty as regards the date of its construction.[4] It was built before the stone proscenium and its structure points to a good Greek period.[5] It may be assigned with probability to the period of the reconstruction of the theatre. It need not excite surprise that the orchestra should still have been used by actors down to (perhaps) the Christian era. The only reason for the elevation of the stage in Roman times was the necessity of using the inner half of the orchestra for seating purposes. This necessity seems never to have arisen at Eretria.[6] Therefore the orchestra remained the most suitable place for the performance of both actors and chorus. When the Roman stage appeared it was made deep enough to accommodate the chorus as well as the actors. There is no reason to believe that the two classes of players were ever separated by a difference of level in the Greek theatre any more than in the Roman.

Returning once more to the tunnel, it must be accepted as evidence that actors appeared in the orchestra in Eretria at a period

[4] WEISSMANN, *Die scenische Aufführung der griechischen Dramen des 5. Jahrhunderts*, p. 11, says: "Man ist einerseits über die Zeit der Entstehung desselben nicht einig." But, so far as I know, Dr. Dörpfeld alone has expressed an authoritative opinion on the subject.

[5] So Dr. Dörpfeld, cf. A. J. A. 1891, p. 277. Fossum's dating of the stone proscenium in the first century B. C. is of course entirely conjectural. See *ibid*, p. 264.

[6] I judge from the fact alone that a low Roman stage was never erected here. This would not prevent the erection of a row of thrones on the level of the orchestra, as at Oropos, and, probably, at Eretria. See Mr. Brownson's report, *A. J. A.* 1891, p. 275.

possibly not far removed from the age of Vitruvius, at a time when a Vitruvian proscenium, whether of wood or of stone, was standing. Fortunately this tunnel cannot be explained away as having been used for drainage purposes[7] or for gladiatorial exhibitions. The objection has been made,[8] it is true, that it cannot be proved that this tunnel was ever used in connection with dramatic performances. Neither can it be proved that this proscenium, the scena, the theatre itself, were ever used for dramatic performances. But the presumption in this case amounts to a certainty. The burden of proof lies heavily on him who challenges the position taken by Mr. Brownson[9] in the official report of this discovery (*A. J. A.* 789, p. 266 ff.) The tunnels found at Sicyon, Magnesia, and Tralles, considered separately, might with some reason have been considered doubtful evidence; but supported by the structure at Eretria, which is in perfect preservation and whose purpose is clear, they should be accepted as the solution of a problem for whose answer archæologists and students of the Greek drama had long been waiting.

EDWARD CAPPS.

[7] Dumon, *Le Logeion*, Paris, 1894, p. 18.; cf. OEHMICHEN, *W. f. kl. Phil.*, 1892, col. 1141.

[8] By Dr. Earle, in a paper an abstract of which is found in the *Fourteenth Annual Report of the Arch. Inst. of America*, p. 61, (1892-3.)

[9] Apart from the extremely improbable suggestion that this tunnel may have served as the cave in the *Cyclops* and *Philoctetes*, *l. c.* p. 278. The most significant passage from the dramas for the illustration of the use of the tunnel by actors is frag. 227 (NAUCK) of the *Sisyphus* of Aeschylus, first pointed out by Wecklein.

SOME SCULPTURES FROM KOPTOS IN PHILADELPHIA.

During the winter of 1894, Mr. Flinders–Petrie explored the site of ancient Koptos, (the modern town of Kuft), some thirty miles north of Thebes, on the 26th parallel.

This was at all times the point from which caravans started on their way to the Red Sea. It stood at the head of the two desert roads that led, one through the Hammamat Valley, due east, and the other to Berenice, to the southeast, and was, therefore, the centre of commerce and the point of contact from earliest times with Arabia and Southern Asia, as well as with the coast of Somali, Eastern Africa, known to the ancient Egyptians as the Land of Punt—the Divine or Holy Land.

Although monumental traces of kings of the Old Empire were recovered—notably those of Khufu, Pepi I, and Pepi Neferkara—the earliest sculptures sent by Mr. Petrie to the department of Archæology and Palæontology of the University of Pennsylvania, date from the reign of Antef V Nefer–Kheperu–Rê, of the XI Dynasty, who reigned about 2875 B. C.

At Koptos King Antef V seems to have rebuilt or added to the ancient temple, and much of the stone work of his edifice was in the course of time used, as was common in Egypt, by his successors as building material for subsequent improvements or additions.

At least forty sculptured limestone slabs, most of which are small and thin—such as the five in the collection now in Philadelphia—were found turned face down, having been used to form the pavement of a later hall (probably of the XII dynasty). The thinness of these has led Mr. Petrie to think that the Antef Temple was of brick faced with limestone. Some of the slabs are incised, others carved in bas-relief and the workmanship is fine.

The subjects represented usually treat of King Antef and of his offerings to Min, God of Koptos, to Horos, and to a goddess. Those here referred to are carved in relief. One represents the flying sun-disc with "Neter-Behuted" on either side. This once formed the lintel of a door-way. The others respectively give the cartouche, names and titles as well as the "Ka" name of the monarch.

An interest especially attaches to these Koptos slabs, as with the exception of a few small fragments in the Ghizeh Museum,

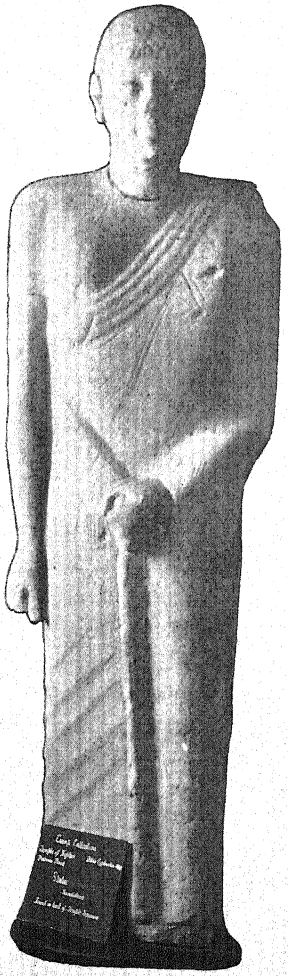


FIG. 39.—STATUE OF THE PTOLEMAIC PERIOD.

they are the only temple wall-sculptures, other than those of funeral shrines, yet known of the period anterior to the XVIII dynasty.[1]

Among the larger and most important objects in the collection is a sandstone statue of the Ptolemaic period, found in the back of the temple *temenos* (Fig. 39). The feet are missing and the head was broken off at the neck, but fits exactly on the body. It is most un-Egyptian in its artistic treatment. Had it been found in the Mediterranean region and had the head been lost, it must undoubtedly have been ascribed to the Archaic period of Cypriote art, when Asiatic influence was most strongly felt. The stiff, conventional attitude, the long, clinging fringed garment showing the slightest possible suggestion of drapery, the position of the arms, undetached from the body, are almost puzzling when considered in connection with the prettily formed head. This is encircled by a wreath of rosettes or daisies, beneath which appears a fine fringe of curled hair, falling over the forehead. Although circlets decorated with rosettes were worn by Egyptian women in the earliest times—as may be seen for instance on the well-known statue of Nefert found at Medûm, as well as on the mummies of the princesses of the XII dynasty, whose unopened tombs were discovered by M. de Morgan at Dashour in 1894—at no time was the hair thus treated by the Egyptian artists; and we are again led to remember the Cypriote statues of the fifth century, in which the influence of Greece is plainly betrayed. Here as in some of those statues[2] the outer corner of the eyes is slightly oblique—no doubt with a view to giving the face a pleasant expression and to bringing the eyes into symmetry with the mouth. But the whole treatment of the hair, and the graceful rounded lines of the charming face of our specimen, remind us that the artist not only belonged to a school of art influenced by Greece, but to a period of higher artistic development. A head given by Dr. Richter in *Kypros, the Bible and Homer* II, pl. CCXV, wears a very similar wreath. The fringe of hair, however, is curled in stiff locks instead of a curly fringe. He ascribes it to the V century.

[1] See Mr. Petrie's *Catalogue of a Collection from the Temple of Koptos, exhibited in the Edwards Library—University Coll.*, London, 1894.

[2] Perrot et Chipiez, *Hist. de l'Art*, III, p. 537, fig. 363.

The individual whose statue is now here, was probably of Egyptian blood: at least the cast of features with its full lips, large eyes, and smooth contours is of the type designated by Mr. Petrie, in his valuable collection of Ethnic types, as high caste Egyptian or Punite—the term being used as derived from Punt, the name given by the Egyptians to the land and district of the Red Sea whence the Poeni or Phoenicians and cognate peoples traced their origin. The specimen is interesting. Dating from a time when Hellenic art had reached its fullest development, but found in a remote locality where Hellenic influence must have been weakened by other influences, it gives us one more warning not to be too ready to ascribe to the Archaic period works of uncertain provenance, offering Archaic features. Did we not know its precise historical horizon, we should, I think, be tempted to ascribe this statue to Cyprus and to a considerably earlier period than that to which we know it to belong.



FIG. 40.—HEAD OF CARACALLA.

Another interesting piece in the series from Koptos is a colossal head of the Roman Emperor Caracalla (A. D. 211) wearing the royal asp of the Egyptian kings (Fig. 40). It was found at the foot of a

flight of steps leading to the temple. It is most repulsive in its expression and is evidently a good portrait. On seeing the rough, brutal face, the scowling eyes, the deep furrows between the brows, no one will feel inclined to doubt the truth of the accounts handed down by history, with regard to the cruelty of the despot. The head is of syenite, it weighs about 300 lbs.; and faint traces of red paint still remain. As far as I know, no other portrait head of Caracalla has been found in Egypt and the specimen is unique also as regards material.

The collection moreover includes some fragments from the temple of Amen-em-hat I, XII dynasty, and a set of foundation deposits of Thothmes III—pottery, bronze implements, etc.; many fragments and minor objects of more or less interest, and a number of flint implements found at various depths in the town.

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UNIVERSITY OF PENNSYLVANIA EXCAVATIONS AT NIPPUR.

II. THE NIPPUR ARCH.

[PLATE XX.]

In an article on the temple of Bel at Nippur, published in this JOURNAL, Vol. x, No. 1, I mentioned the discovery by Mr. Haynes of a "Roman" arch. This gave rise to an unfortunate misunderstanding, as though he had meant to ascribe the arch to the Roman period. In point of fact, Mr. Haynes claimed from the outset that he had discovered a true arch far antedating any hitherto discovered. At the time when my article was written I was unable to give any details regarding this arch, but since then the Committee has received from Mr. Haynes blue prints of the arch and its surroundings, which prove it to be a true key-stone arch, pointed, and older than the time of Sargon of Agane (3800 B. C.). The accompanying drawings, made from these blue prints by Mr. James T. Dye, will demonstrate, I think, the complete accuracy of Mr. Haynes' claim that he has discovered a true arch, older by many hundred years than any hitherto known.

It will be interesting to give the history of the discovery in his own words. Under date of Oct. 13th, 1894, he wrote as follows: "Underneath the spot where the greatest number of these terra-cotta water-vents were found [an illustration of these water-vents was given in the afore-mentioned number of the JOURNAL, FIG. 21] we have to-day come upon a drain extending under the walls of the aforesaid building. The drain appears to be older than the building above, and to have fallen into disuse before the building was placed above it."

A week later, Oct. 20th, he writes: "The drain reported in my last letter to have been found under the very ancient building

or edifice under the eastern corner of the ziggurat has been followed out, and at its outer or discharging orifice we have just found a section of an arch that may have originally covered the whole drain. This is a perfectly formed elliptical arch of one foot and eight inches span, and one foot one inch rise, with a total height of two feet four inches from the bottom to the top of the arch." And a month later, Nov. 24th, he writes that "the drain passes under the entire breadth of the edifice."

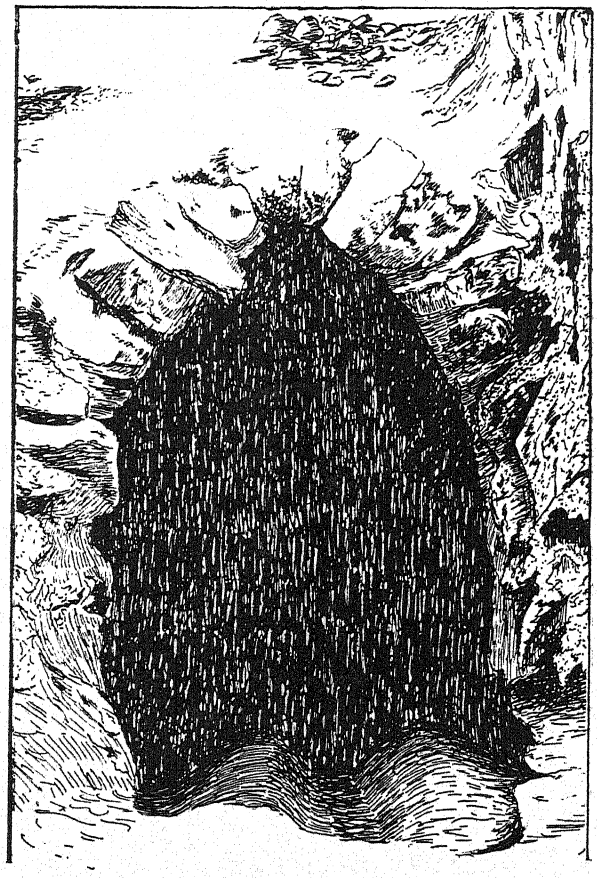


FIG. 41.—VIEW OF ARCH FROM THE INSIDE.

FIG. 41 gives a view of the arch above described "from the inside, before its front was opened. Two drain tiles are dimly seen

in the bottom of the arch." FIG. 42 gives "a more distant view" of the same arch. PLATE XX "shows the outward side of the arch. The arch here is forced out of shape. It would seem to have been done from the unequal pressure of the settling mass above it, when it was drenched, perhaps with percolating rain water, from above. Since the arch is laid in clay mortar the bricks would readily yield to unequal pressure, especially as these bricks



FIG. 42.—A MORE DISTANT VIEW OF ARCH.

are convex on one side, while they are flat on the other side. You will observe one of the tiles (broken) in the bottom of the drain and a smaller tile in the top of the arch. I do not profess to know the meaning of these tiles. It is, of course, possible that the water-vents [which, as stated above, were found very near this arch and drain] served some purpose in connection with the tile in the top of the arch. The size of the tile admits of such

possible use." Mr. Haynes then calls attention to the proximity of the drain and arch to the altar, and suggests the possibility that the drain carried away the waste from the altar, while the small upper tile, to which was probably attached a water-vent, brought water for drinking and other purposes.

The remaining illustrations (FIGS. 43, 44, 45, 46) show the position of this arch in relation to the surrounding and superincumbent structures. FIG. 43 "gives a front [southeast] view of the

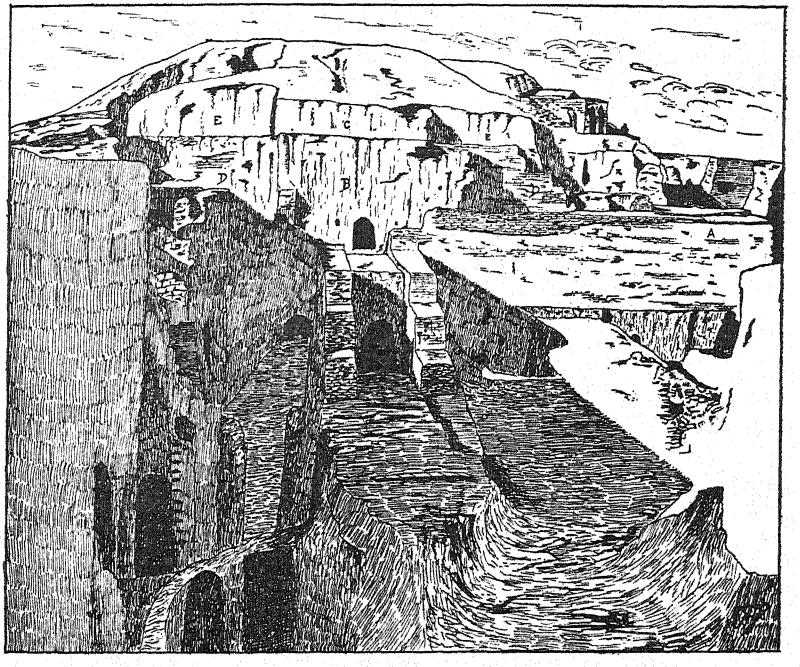


FIG. 43.—VIEW OF ZIGGURAT FROM SOUTHEAST.

ziggurat. It was taken from an opening in the great enclosing wall of the temple area in front of or southeast of the ziggurat itself. In the middle of the picture is the causeway, which may have been an approach to the higher stages of the ziggurat. It is composed of two parallel walls built of the burned bricks of Ur-Gur, many of which are stamped with the well-known eight-line inscription. The space between the two walls is filled with a regularly laid and solid mass of crude bricks, whose average

dimensions are 9 by 6 by 3 inches. These bricks are of the same mould, and in color and texture are identical with the crude bricks composing the greater part of the huge mass of the ziggurat built by the mighty builder Ur-Gur. The stepped appearance of the two walls of the causeway is the result of cutting down the walls to make a level foundation for the façade or crust of the later cruciform construction [built against and upon the ziggurat]. As this construction was built up solid, the outer part or crust cannot be spoken of as a wall. It was under this crust, corresponding to the wall of a building, that the parallel walls of the causeway were cut down to provide against the ponderous settling of the mass above it. The tunnel under the entire length of the causeway proves the structure, as it now stands, to be homogeneous, and therefore the work of a single builder, who is the great builder of the ziggurat, which is now freshly exposed to view.

"The original faces of the second and third stages of the ziggurat are respectively shown at D, D and E, E. B and C are central projections of the same stages. No such projections are to be found on any other side of the ziggurat. The design of these projections over the causeway is not evident." . . . . "Whatever the purpose of this earliest causeway may have been, it seems to have suggested to the later generations the form that was adopted in the cruciform construction. At a higher level, and belonging to a later period than the causeway, were built from the middle of the four sides of the ziggurat, at right angles to its faces, four arms twenty feet wide and probably upwards of sixty feet in length. These arms were built of crude bricks, measuring $14 \times 14 \times 6$ inches.

"The cruciform construction of later times was a broadening of these arms on essentially the same foundations, thus making an immense elevated platform. It may readily be supposed that a smaller ziggurat . . . rose from the centre of this great cruciform structure as a platform. . . . This accounts for the large and high cone of crude bricks still rising far above the cruciform construction. Whatever value one may assign to these suggestions, it is clear that the earlier causeway suggested the intermediate projections on the four sides of the ziggurat, and an enlargement of these produced the great cruciform construction."

In further elucidation of this illustration I may say that the shrine-like brick structure on the upper northeastern side of the ziggurat is not part of the ancient Babylonian temple, but a guard house erected by Mr. Haynes for his own protection at the excavations. The wall marked A is the face of the lowest stage of the ziggurat of Ur-Gur. On this side, and this side only, the lowest stage of the original was of burned brick, the remainder of the ziggurat being of crude brick, as stated in my recent article in the JOURNAL. To the left of the causeway represented in this FIG. 43 was found a door-socket of trachytic rock with an inscription of Ur-Gur. The suggestion is that this door-socket[1] originally stood on the causeway and was thrown down at the time when the later construction, described by Mr. Haynes, was built upon this causeway. In that case the causeway, as the approach to the ziggurat, was guarded by a gate. The form of the projections B and C, on the second and third stages, directly above the causeway, suggests some means of ascent to the summit, as by steps, at this point. The later reconstructions have, however, so modified the ziggurat at this point as to compel us to resort to conjecture.

The cruciform structure which the ziggurat later assumed, whatever its origin, reminds one forcibly of the square cross, which I have found in Babylonia as early as the time of Gamil-Sin of Ur (2400 B. C.), and which symbolized the sun. This cross represents the two diameters of a circle, and may be used either with or without the circle about it.

FIG. 44 "gives a good general view of the eastern corner of the ziggurat and the adjacent excavations." The wall of small baked bricks, broken into at the corner, is A of FIG. 43, the facing wall of the lowest stage of the ziggurat of Ur-Gur on the southeastern side. The brick wall visible on the northeastern side is of a later date, as explained in my late article in the JOURNAL. "The solid mass underlying the ziggurat of Ur-Gur, and included between the lines A–B, C–D, is a section of the platform of crude bricks ($9 \times 6 \times 3$), eight feet in thickness, which the first and the

[1] A similar door-socket, found fifty or sixty years ago on or near the surface of the temple mound, is in the possession of a neighboring chief. I saw an impression of this stone in 1890, but was unable to purchase the original.

greatest of the monumental kings [Ur-Gur] made, not only to serve as the foundation of his splendid ziggurat, but also to form the pavement of the entire temple enclosure, defined by the inner line of towers, of which the two bastions in front of the ziggurat are integral parts. Below the line C–D, but not extending so

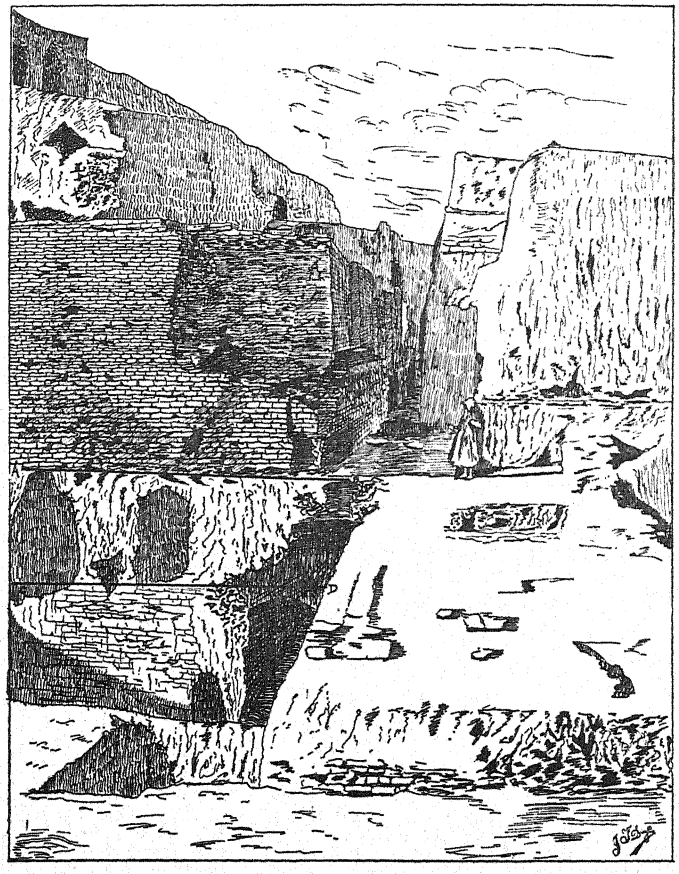


FIG. 44.— EASTERN CORNER OF THE ZIGGURAT.

far to the right as D, is the very ancient edifice descending eleven feet from the line C–D. There can be little doubt that it belongs to the time of, and is the work of some king of, the Sargon dynasty, or of an earlier king than even the very ancient Sargon." .... "In the line C–D [under the letter D] is seen a fragment of a pavement. The bricks of this pavement are the bricks of Sar-

gon and of his son Naram-Sin. They are $15\frac{1}{2} \times 15\frac{1}{2} \times 3$ inches in measurement."

Under date of Nov. 24th, 1894, Mr. Haynes gives the following account of this pavement: "Underneath the crude brick platform on which the ziggurat was founded was a bit of pavement, consisting of two courses of burned bricks. The lower course of the pavement contained several stamped bricks of Naram-Sin, and at least three or four of Sargon's stamped bricks. The pavement contained bricks and half bricks of Sargon and his son, and may have been laid by the latter, or by some successor of him."

That is to say, the bricks are evidently not old ones collected from other buildings or pavements by later kings and relaid at this point, but are found in their position as originally laid by Naram-Sin. It should be noted that we always find Naram-Sin in close association with his father, so close, indeed, that we might almost suppose that he was associated with him upon the throne; which association, if it existed, would well explain the use by Naram-Sin of new bricks of his father along with his own.

In confirmation of this date for this pavement are the additional facts that Mr. Haynes found at the eastern corner of the ancient building, immediately below the platform of Ur-Gur, a brick-stamp of Sargon, and that while he found various objects with inscriptions of Sargon and Naram-Sin above this pavement he found nothing of either of these kings below it. My own discoveries of the remains of Sargon in so far confirm this view of the age of this pavement, that I found remains of Sargon and Alu-Sharshid immediately beneath the Ur-Gur remains. It must be added, however, that I also found at some distance away remains of Sargon at a depth of $7\frac{1}{2}$ feet below this. So, also, in excavating the city wall to the northwest of the temple [XI in the general map of the mounds published in the JOURNAL, PL. V] Mr. Haynes found crude bricks, $20 \times 20 \times 3\frac{1}{2}$ inches, inscribed on the under surface with the name and titles of Naram-Sin, immediately beneath the familiar $9 \times 6 \times 3$ bricks of Ur-Gur.

But if this platform of two courses of baked brick were built by Naram-Sin, it is then clear that the ancient edifice, the foundations of which are eleven feet below this platform, the altar, the

top of which is three feet below the platform, and above all the arched drain, the bottom of which is fifteen feet below the level of the platform, are older than the time of Naram-Sin. Mr. Haynes has been too modest to believe that he has made discoveries so much earlier than any heretofore made, or almost dreamed of, and in my article in the JOURNAL (X, 1) I followed too implicitly the example of his modesty. With the facts furnished by his latest letters and the accompanying photographs it is now clear that his later discoveries beneath the ziggurat are even much earlier than we had at first supposed.

In my article on the Temple, I, following Mr. Haynes, ascribed the building beneath the eastern corner of the ziggurat to Naram-Sin. It is clearly older, the pavement of the last-named king being flush with the summit of the remains of that building. The pavement, however, does not overlie this building, upon which, without anything intervening, rests the eight-foot thick platform of Ur-Gur, the foundation of his ziggurat. It was this lack of continuity of the pavement of Naram-Sin, with the immediate superimposition of the work of Ur-Gur upon the tower, just as the work of Ur-Gur is superimposed upon that of Naram-Sin in the external city wall, together with a partial resemblance in size and texture between the Naram-Sin bricks of the city wall and the bricks of the ancient tower, which caused the mistake.

Under date of Oct. 15, 1894, Mr. Haynes thus describes the ancient building beneath the eastern corner of the ziggurat: "A small and separate building . . . having an equal length and breadth of 23 feet, with a symmetrical and double re-entrant angle at its northern corner. It is built up solidly like a tower, and its exterior surface shows no trace of a door or opening of any kind. Its splendid walls, eleven feet high, were built of large crude bricks, each measuring one foot six and a half inches in length and breadth, and varying in thickness from $3\frac{1}{2}$ to 4 inches. [The Naram-Sin bricks in the outer city wall measured $20 \times 20 \times 3\frac{1}{2}$.] The bricks were made of tenacious clay, thoroughly mixed with finely cut straw and well kneaded. The batter of its wall averages $\frac{3}{4}$ inches to the foot."

FIG. 45 will give some idea of the relation to each other of this ancient tower (beneath which, it must be remembered, lies

the arched drain), the Ur-Gur ziggurat, the altar, and the archaic curb of brick described in the JOURNAL. The photograph from which the sketch was made was taken "from an elevated position nearly east of the corner." . . . . "A is the first stage of Ur-Gur's ziggurat. B is a pavement, about ten feet wide, on which was laid the sloping bed of bitumen to protect the foundations of the ziggurat from falling rain. The tunnels under this pavement discovered the lower archaic edifice that is still without a name. The curb of primitive bricks, seven courses high, supposed to

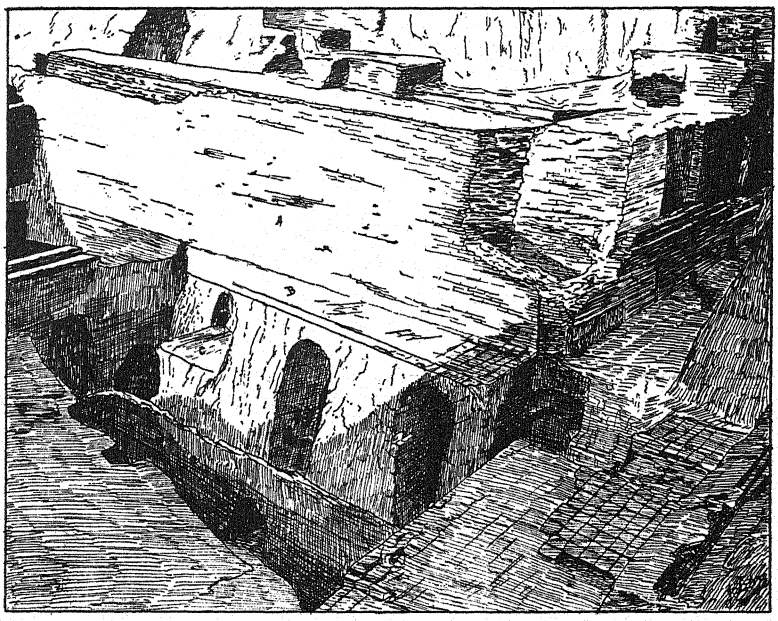


FIG. 45.—VIEW OF ALTAR AND CURB.

bound the sacred enclosure around the altar, cuts off the view of the lower part of the tunnels. A wall of unexcavated earth is left underneath the curb to support it in place. C is the early altar lying under the eight-foot pavement of Ur-Gur, as did also the curb, which is still lower than the altar."

The top of the altar, as already stated, was 3 feet below the bottom of Ur-Gur's platform. It was made of earth with a rim of bitumen around the edge on top. Its surface dimensions were

13 feet by 8. It was well covered with ashes, some of which proved to be bone ashes, and a bin or receptacle, also of unburned clay, to the left (southwest) of the altar was half full of ashes. To the right of the tower is seen a part of the pavement of Naram-Sin.

FIG. 46 will supplement FIG. 45 in explaining the relative position of the strata at the eastern corner of the ziggurat, and especially of the arched drain. It is a view from the top of the

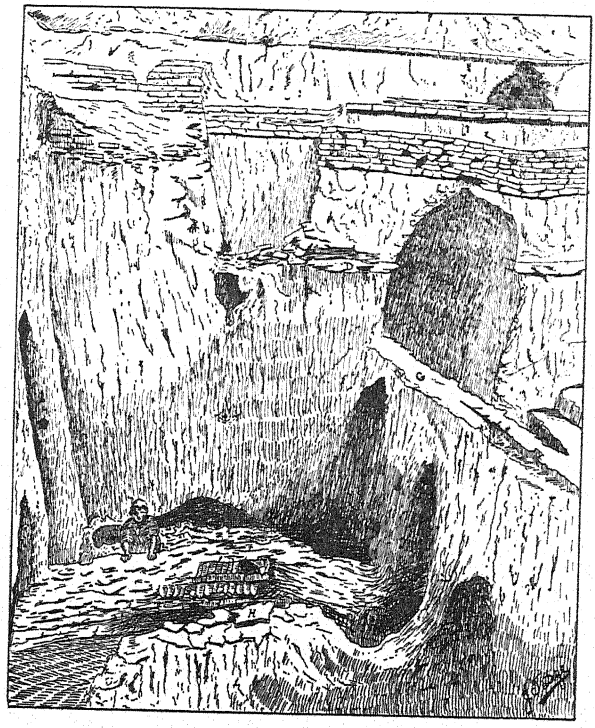


FIG. 46.—EXCAVATIONS ABOUT AND ABOVE THE ARCH.

altar looking "down into the deep trench." "G is the curb. The early arch is directly under the curb, and being in deep shadow is scarcely discernible. The arch covers the mouth of an open drain seen at H. At D is seen a bit of pavement higher than the curb. . . . . This pavement consists entirely of the burned bricks of Sargon and Naram-Sin. Directly upon this pavement is placed the great crude brick platform, eight feet thick, of Ur-Gur. Be-

low this pavement at D no bricks of Sargon or of his son Naram-Sin have been found. It should be noticed that this pavement . . . . is on the level of the top of the lower archaic edifice, underlying Ur-Gur's platform; that it is three feet higher than the ancient altar, and that it is eleven feet above the foundation of the lower edifice, and fifteen feet above the bottom of the early drain and arch."

And now before summing up conclusions with reference to the arch and its date, it may be interesting to call attention to some of the objects found at or below the Naram-Sin level, but above the level of the arch, near the ancient tower. "In a layer of light gray ashes, some four inches in depth, on the northeastern side of this building, and nearly on a level with the top of its walls, and underneath the Ur-Gur platform of crude bricks was found a fragment of an unbaked tablet," also "several lumps of kneaded clay, and among them an imperfect tablet prepared on one side only for an inscription."

Besides the interest which this discovery has as showing the use of clay tablets at so early a date, it also exhibits the manufacture of tablets within the temple precincts, and in close proximity to, if not in connection with, the central shrine. It will be remembered that a pottery furnace containing a newly-baked tablet of a similar early date was found in front of the ziggurat to the southeast. More recently Mr. Haynes has discovered a deposit of unbaked tablets, apparently of the Cossaean period, in a room close to the western corner of the ziggurat. I found a number of beautiful baked clay tablets, unlike anything else which I have ever seen, quite close to the ziggurat to the southeast, but above the Ur-Gur level. All of which suggests to my mind a connection between the Temple, and particularly the ziggurat, and the manufacture of the tablets, especially in the earliest period, when we may suppose that writing was more rare, and hence more sacred. It is noticeable that almost every inscribed stone found at Nippur has been found in the Temple, and the very few fragments found elsewhere were manifestly not in their original position.

"Several fragments of lime mortar have also been found in the debris near the walls of the above-mentioned building, and at a

depth of several feet below Ur-Gur's platform." The discovery of lime mortar would appear from this note of Mr. Haynes to have antedated Naram-Sin. The earliest use of bitumen for mortar which I remember to have observed at Nippur postdates this use of lime mortar, occurring in constructions of the time of Ur-Gur. As stated above, the bricks of the drain and arch were laid in mud. Considering the effect of running water on such mortar, one is almost inclined to argue that neither lime nor bitumen were known in Babylonia at the time of the construction of the arch.

At the beginning of October, 1894, Mr. Haynes wrote: "On the southeastern side of this ancient edifice, nine feet below the bottom of Ur-Gur's platform, two terracotta water vents were found." Toward the close of November he writes: "On the southeastern side of the above-mentioned building [the archaic tower], and on a level with its foundations, have been discovered ten basketfuls of the archaic water vents." . . . . "All of these have been found within ten feet from the above-mentioned building . . . . and on the sides nearest to the altar."

Attention has already been called to the possible relation of the archaic drain to the altar, and of the water vents to both. It is worthy of note that the necessity of holding and controlling water was one of the fertile causes in the early development of the art of baking and shaping clay in Babylonia. Among the apparently most ancient "finds" made by Mr. Haynes at Nippur was a terracotta fountain found in the bed of the Nil canal, which divided the city of Nippur into two parts. Under date of August 13th, 1893, he writes: "By means of a trench 87 feet long, with an average depth of 21 feet, we have at length found the ancient bed, and northeastern, or left bank of the Shatt-en-Nil at the narrowest point of the main canal, opposite to the hill marked IV on the general map of Nippur [viz., PLATE IV accompanying my late article in the JOURNAL]. At the depth of 20½ feet below the surface, in the middle of the stream, and at the point where the accumulations above it were least, the bed of the canal was found."

"In the debris accumulated above the bed of the stream, and seventeen feet below the surface, we found three fragments of an

ancient terracotta foundation of unique design, with interesting figures in high relief. One fragment, seven by ten inches, represents a priest clad in richly embroidered robes, and standing on the backs (shoulders) of two winged camels, I think possibly winged horses. Jets of water poured through the upturned heads of the animals. From the curvature of the fragments I judged the fountain to have been more than two feet in diameter, and there must have issued from it at least sixteen jets of water. To me these fragments are interesting from two points of view—first, as proving the existence of fountains at Nippur; second, as an example of somewhat archaic art, in which the perspective is bad and the species of the animals not easily distinguished, while the decorations and robes of the headless priest reveal the artist in a work of true merit."

This fountain, together with the water-vents of terracotta and the arched drain with especially constructed tiles certainly show the importance of water works in the early art and architecture of Nippur. Mr. Haynes ventures the suggestion that the first use of baked bricks was due to the necessity of constructing drains and waterways capable of resisting the action of water. However this may be, the earliest arch yet found in Babylonia, or, indeed, anywhere, like the earliest arch found in Rome, the arch of the Cloaca under the Circus Maximus, was the arch of a drain or water-way.

As has been already pointed out, this arch antedates by a considerable period the time of Naram-Sin (3750 B. C.), since it lies beneath structures which were themselves older than his era. It cannot apparently be ascribed to a period later than 5000 B. C., if the date of 3750 B. C. for Naram-Sin be correct. A more precise date I do not as yet venture to propose, as the strata below the Ur-Gur platform has not yet been explored over a sufficiently large area. Below the bottom of this arch also there are from twelve to fifteen feet of debris which are practically unexplored.

As will be evident from the above descriptions of the arch and the position in which it was found Mr. Haynes has discovered a true arch of an almost incredible antiquity. After this article was already in type a letter from him under date of April 27th, 1895, announced the discovery of another arch, this time of crude

brick, in hill x, a part of the city separated from the temple by the Nil canal. He describes this arch as "pointed," by which I understand that he means sharp pointed, like the Gothic, and not blunt, or round pointed like the one described above. Mr. Haynes conjectured that this latter vault or arch might be older than 2000 B. C., and from the objects which he reports as found with it and about it his conjecture is confirmed, since these objects date from about 2500 B. C. We have, then, two arches from Nippur, one from about 5000 B. C., and the other from about 2500 B. C. The construction of the former of these arches shows us that at that very early period the principle of the arch was already thoroughly understood in Babylonia and that the arch already had a story behind it. To the best of my knowledge no other examples of the true arch have been found in Babylonia earlier than the Parthian or Sassanian period. This is due partly to the fact that so little excavating has been done among the ruins of that region, and partly to the fact that the upper portion of constructions of all sorts is the part which has almost always fallen completely into ruins. In Assyria, however, Layard found a vaulted room and more than one arch in the ruins of Nimroud. He reports these as true arches and says of one of them in his *Nineveh and its Remains*, Chap. XI: "The arch was constructed upon the well-known principle of vaulted roofs—the bricks being placed sideways, one against the other, and having been probably sustained by a frame-work until the vault was completed." At Khorsabad, Place discovered several arched drains, pointed, elliptical and round, but in these the bricks or stones were laid at an angle, each course having a support in the course before it, so that no frame was required in the construction, a method of building arches employed to this day in the Turkish empire.

In Egypt it is possible to trace somewhat more fully the development of the arch, but there also great lacunae are yet to be filled. The principle of the arch, support by thrust, seems to be recognized in the pyramid of Cheops, where the roof of one of the chambers, having an enormous weight to uphold, is formed by two stones resting against one another at an angle. The third pyramid, of the fourth dynasty, advances a step further. In this

the roof of one of the tomb chambers is formed of blocks of granite resting against one another at an angle, as in the pyramid of Cheops, but it is unlike the latter in that these blocks are hollowed out on the under side, thus giving an effect something like the English Gothic. A tomb at Abydos, of the sixth dynasty, described by Mariette, presents us with a keystone arch of elliptical shape in which the key and the two bases are of stone, while the intervening portions are of unbaked bricks, leaving large interstices to be filled in with mud and small stones. Two very ancient tombs at Sakkarah, the precise date of which is uncertain, exhibit the arch completely developed (Maspero, *Mission archéologique française au Caire*, I, 195), and by the time of the thirteenth dynasty elliptical and round arches become quite common in tombs.

While it is probable that in this as in other matters the civilizations of Egypt and Babylonia were parallel and not dependent, so far as our present information goes, the arch was known in the latter country earlier than in the former, the Nippur arch, discovered by Mr. Haynes, antedating the earliest true arch yet found in Egypt by more than a thousand years.

The earliest arch yet discovered outside of those countries, namely the Cloaca under the Circus Maximus at Rome, is nearly contemporary with the arches found by Layard at Nimroud, and more than four thousand years later than the earliest arch discovered by Haynes at Nippur.

In conclusion, although it has no bearing upon the subject of this arch, or its date, I will take this opportunity to correct what now appears to be an erroneous statement in my article in the JOURNAL on the Temple of Bel, on the basis of fresh information from the field. As I stated then, we are not yet in a condition to reach final results in many points, and, as all know, theories are apt to be overturned by new facts, even when we think we have them well established. I suggested that the two towers on the inner wall of the temple enclosure were pillars of the same nature as Jachin and Boaz in the Jewish temple, conventionalized phallic symbols. Mr. Haynes appears at length to have established the fact that they were bastions on a line of fortification enclosing the temple court, erected by Ur-Gur, and rebuilt or built upon by others at a later date. His final proof, which

seems convincing as to the intention of the towers, at their last reconstruction at least, is the discovery of a parapet, something which strangely enough I failed to find. It was the fact of the cone-like shape of these towers, precisely like gigantic phalli of a type very common at Nippur, in conjunction with their position, which reminded me of that of the solid cone-shaped structures found by Bent in Mashonaland, and the use of the two columns in Syrian, Phoenician and South African temples, as well as at Jerusalem, which led me in reconstructing the temple to form such a theory regarding them.

It ought to be added that small phallic symbols are very common in the Temple at Nippur. Some of these represent the male organ in the most completely naturalistic fashion, and from these to the inscribed nail-shaped objects, found in such large numbers at Tello, we have been able to form a complete and unmistakable series. These phalli were for the most part scattered promiscuously through the debris at all levels from the surface downward. Once only we found them in unmistakable connection with a wall, thrust into the bitumen mortar between the bricks, or lying at the bottom of the wall in a position which suggested that they had once been thrust into it. It will be remembered that at Warka Loftus found a wall constructed entirely of these cones, arranged in patterns. I do not remember any report from M. de Sarzec with reference to the use made of these cones at Tello, but in examining his excavations I saw a wall from which his workmen said that he had obtained a very large number of nail-headed, inscribed cones, where the cones were built into the wall without pattern or order in the bitumen between the bricks. There were certainly hundreds of these cones in the wall at the time that I saw it. What was the meaning of this use of the cones I do not know, but that the cones were conventionalized forms of the phallus was clearly established by the series collected at Nippur. In view of the ubiquity of phallus symbols in Babylonian ruins, and their varying sources, I trust that I may be pardoned for my mistake in regard to the cone-like towers or bastions.

JOHN P. PETERS.

St. Michael's Church,
New York, June 15, 1895.

ARCHÆOLOGICAL NEWS.

Summary of recent Discoveries and Investigations.

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AFRICA.

EGYPT.

THE EGYPTIAN RESEARCH ACCOUNT AND A NEW EGYPTIAN RACE.—The work of this new enterprise, which is still on a humble scale, has resulted this season in filling the greatest blank in Egyptian history and doing so in the most unexpected manner. To write of a new race in Egypt, and of towns and cemeteries in the heart of the country filled with objects entirely non-Egyptian might have seemed absurd six months ago; yet that is the present result. Mr. Quibell's work for the Research Account has so closely interwoven in subject with my own work in the same district that most of the results are common to both parties; but in the essential matter of dating, all the honors have fallen to him, and but for the Research work we should still be groping in the dark as to the age of this new people. I will now briefly summarize the joint results.

A new race has been found, which had not any object or manufacture like the Egyptians: their pottery, their statuettes, their beads, their mode of burial are all unlike any other in Egypt; and not a single usual Egyptian scarab, or hieroglyph, or carving, or amulet, or bead, or vase has been found in the whole of the remains in question. That we are dealing with something entirely different from any age of Egyptian civilization yet known, is therefore certain. That this was not a merely local variety is also certain, as these strange remains are found over more than a hundred miles of country, from Abydos to Gebelen; our own work was near the middle of this district, between Ballas and Negada. In this area, and indeed side by side with these strange remains, are Egyptian towns and tombs with pottery,

beads and scarabs of the IV, XII, XVIII and XIX dynasties, exactly like those found similarly dated in Northern Egypt. The strata of Egyptian civilization were therefore uniform over the whole country, so far as we are concerned. No local differences can account for the novelties. The age of the new race is fixed by the juxtaposition of their burials with those of the IV and the XII dynasties, and of their towns with burials of the XII and XVIII dynasties. These evidences prove that they belong to the age between the IV and XII dynasties, and the known history further limits the date between the VII and IX dynasties, or about 3000 B. C.

The race was very tall and powerful, with strong features; a hooked nose, long-pointed beard, and brown wavy hair are shown by their carvings and bodily remains. There was no trace of the negro type apparent, and in general they seem closely akin to the allied races of the Libyans and Amorites. Their burials are always with the body contracted, and not mummified, lying with head to south and face to west, just the reverse of the contracted bodies at Medûm. Although most of the graves have been disturbed, yet sufficient examples remain untouched among the 2,000 graves opened by us to show that the bodies were generally mutilated before burial. One large and important tomb showed four skulls placed between stone vases on the floor, a separate heap of loose bones of several bodies together, and around the sides human bones broken open at the ends and scooped out. Such treatment certainly points to ceremonial anthropophagy. Other graves are found with all the bones separated and sorted in classes. The type of the graves is like that of those in the circle at Mykenai: open square pits, roofed over with beams of wood. They are always by preference in shoals of watercourses; showing that the race came from a rocky country, where excavation could not be made except in alluvium. The great development of the legs points to their having come from hills, and not from a coast or valley. The frequency of forked hunting lances shows their habit of chasing the gazelle.

Metal and flint were both in use by these people. Copper adzes show that the wood was wrought, and finely carved bulls' legs to a couch illustrate the work. Copper harpoons were imitated from the form in bone. Copper needles indicate the use of sewn garments, and the multitude of spinning-wheels in the town proves how common weaving must have been. Flint was magnificently worked, far more elaborately than by the Egyptians of any age: the splendid examples in the Ashmolean and Pitt-Rivers Museums at Oxford are now seen to belong to this people. Both knives and forked lances are found. Stone vases of all material, from alabaster to granite, were favorite

possessions; they are beautifully wrought, but entirely made by hand, without any turning or lathe work. A very puzzling class of objects long known in Egypt are the slate figures of birds and animals, rhombi, squares, *etc.* These now prove to be the toilet palettes for grinding malachite, probably for painting the eyes, as among Egyptians of the IV dynasty. Beads were favorite ornaments, and were made of cornelian, lazuli, transparent serpentine and glazed stone.

Pottery was the favorite art of these new people: the variety, the fineness and the quantity of it is surprising. Few graves are without ten or a dozen vases, sometimes even as many as eighty. Most of these are of the coarser kinds, merely used for containing the ashes of the great funereal fire; for though the bodies were never burned, a great burning was made at each funeral, the ashes of which were carefully gathered and preserved, sometimes as many as twenty or thirty large jars full. (See the probably Amorite custom in 2 Chron. XVI, 14, XXI, 19; Jer. XXXIV, 5.) The varieties of pottery are the polished red hæmatite facing, the red with black tops (due to deoxidation in the ashes), and the light brown with wavy handles, like the Amorite pottery. A later stage of pottery was of coarser brown and of much altered forms, copying somewhat from Egyptian types of the Old Kingdom. The wavy-handle jars went through a series of changes, forming a continuous scale by which their relative ages can be seen. Animal-shaped vases and many curious sports are found in the red-faced pottery. Besides these forms, three kinds of pottery seem to have been imported: buff vases imitating stone, with red spirals and figures of animals and men; red polished vases with figures of animals and patterns in white; and black bowls with incised patterns, most like the earliest Italic pottery. Besides these designs, a great variety of marks are scratched on the local pottery, but not a single hieroglyph or sign derived from Egyptian writing has been found. Another fact showing the isolation of these people from the Egyptians is that all of this fine pottery is hand-made: the wheel was unknown.

The source of this new race cannot be discussed until the hundreds of skulls and skeletons which have been obtained are brought over and studied. Though some objects point strongly to an Amorite connection, others indicate a western source; and it must be remembered that probably the Amorites were a branch of the fair Libyan race. The geographical position is all in favor of the race having come into Egypt through the western and great Oases, for the VII and VIII Egyptian dynasties were still living at Memphis, showing that no people had thrust themselves up the Nile Valley.

The other work of the season has been also of interest. A large number of tombs of the IV dynasty, with staircases, were found by Mr. Quibell. The Egyptian town of Nubt was found, from which Set was called Set-Nubti, and some fine sculptures of Set were unearthed. This name Nubt was doubtless transformed into Ombos, like the greater Nubt = Ombos up the river; and this explains Juvenal's account of the Tentyrites and Ombites being neighbors. On the top of the great plateau, 1,400 feet over the Nile, I found the untouched home of palaeolithic man, strewn with wrought flints, some of which are the finest of such work yet known. A later style of flints were also found embedded in the gravel of the old high Nile, thus extending the discovery of General Pitt-Rivers in the Theban gravels.

An English school of archæology has been a working reality this season in Egypt. Besides Mr. Quibell on the Research Account, I have had Mr. Grenfell, Mr. Price and Mr. Duncan actively engaged with me, in addition to others who have come for a shorter stay. But for such full help it would have been impossible to do so much in the time.—W. M. FLINDERS PETRIE, *Academy*, April 20.

In another account in the London *Times* we read (see *N. Y. Independent*, May 2): "On the top of a plateau, between Ballas and Negadeh, about thirty miles north of Thebes, 1,400 feet above the Nile, the home of palaeolithic man was found. Large, massive flints, beautifully worked and perfectly unworn, were discovered, of exactly the same forms of those so well known in the river gravels of France and England. The enormous age of these is shown by the black brown staining of them, while others of 5,000 years old by their side show scarcely a tinge of weathering. Besides these, other flints of a later palaeolithic type are found embedded in the ancient gravels of the former high Nile. So that the Nile still rolled down as a vast torrent, fifty times its present volume, at the latter age of palaeolithic man. Turning now to historical times, a town was found on the edge of the desert adjoining a small temple. On clearing this site it was discovered to be the centre of the worship of the proscribed god Set. In early times the two brothers Set and Horos were both venerated; but as the Osirian legend grew into popularity Set became abhorred for his enmity to his father Osiris, and every trace of his worship was removed. In this town of Nubt, from which he was known as Set-Nubti, he was specially venerated, and many figures of him were found. A magnificent lintel, with figures of Set, has been sent to the Gizeh Museum. The discovery of this town, being called Nubt, explains a passage which has hitherto puzzled translators of Juvenal. Another town known as Nubt was rendered by the Greeks as Ombos, now Koum Ombos. But it was this recently found Nubt-Ombos which

Juvenal refers to in his Fifteenth Satire as being next to Tentyra, for Denderah is the nearest city to this on the north. Besides the classical interest of it, the town was of great value as preserving the remains of many successive ages. At the bottom of it was pottery precisely like that found in Northern Egypt of the IV dynasty. Above it was pottery the same as that of the XII dynasty, and above that pottery like that of the XVIII and XIX dynasties in northern sites. Hence there is proof that the varieties of style already traced were not merely local, but extended widely over the country.

But the strangest result awaited the explorers here. Not a quarter of a mile from this Egyptian town lay another site of a town. In that not one potsherd was like those of any of the periods seen in the Egyptian town. And, *vice versâ*, not a single shred like those in the strange town was to be found in Nubt. If the new town had been found in Syria or Persia no one would have supposed it to be connected with Egypt. Not only was a town found, but also a series of cemeteries of this same new race; and although nearly 2,000 graves have been completely excavated, every object noted in position and everything preserved and marked, in this great number of graves not a single Egyptian object was found."

EXHIBITION.—There was on exhibition in July in the Edwards' Library and Museum, University College, London, a collection of the non-Egyptian objects found during last winter by Prof. Flinders Petrie and those working with him in the course of these excavations. The finish is in many cases exquisite and the forms are beautiful: the makers of the pottery do not seem to have learned from the Egyptians the secret of the potter's wheel, for all their pottery is hand-made. The key to the comparative chronology of this pottery and the funerary objects with which it is associated was found in the unpolished, wavy-handled jars, of which specimens are arranged in order of development—or degeneration—on Stand 9. The earlier forms of these jars closely resemble the Amorite pots with wavy handles found at Lachish, in Palestine, and in these instances the handles are distinctly structural. In the later examples the form has changed to a cylindrical shape, and the wavy handles in relief to a slight and continuous incised pattern carried round the vessel. The pottery with polished red hæmatite facing, examples of which occupy Stands 2, 3 and 5, and which recalls in texture the modern ware of Asyût, is also distinctively characteristic of this people who made it, more especially that which is partially blackened in the firing.

Some of the larger pieces of this pottery (Stand 5) were incised after firing with cursive linear drawings of natural forms, such as a tree, a bird, a scorpion, a gazelle, and even a rude human figure, or

with conventional signs; but no traces of writing have been found in connection with the remains of the men who thus marked their property in pots. On Stand 4 is pottery made and colored in imitation of the stone jars for suspension, which may be seen hanging along the middle of the room. It is possible to imagine, from the careful juxtaposition of the pottery vases, how the realistic marbling may have suggested the patterns which succeeded it. Another decoration suggests as its origin the network and cordage used to sustain the stone jars. Stand 7 is filled with pottery of curious and distinctive forms: pottery decorated in relief, jars in the forms of animals, clay boats, *etc.*, modelled in the round. Here, also, are specimens of the only type of pottery belonging to this people which was adopted by the Egyptians on their return to power after the submergence of the Old Kingdom. This form, which somewhat suggests bottles in modern use for holding salad-dressing, is found, albeit in different material, in Egyptian pottery, of the XII dynasty.

That the strange race also imported pottery, is to be concluded from the fact that certain highly decorated types were found only in conjunction with examples of a certain stage in the evolution of the wavy handles, and that no evidence of the gradual evolution of the characteristic decorations was forthcoming on the spot. The commonest design (Stand 6) is a large boat with three paddles for steering, and with cabins on deck. At the prow are palm fronds, and aft is a tall pole bearing an ensign, which is in one case an elephant. There is also a further decoration of rows of birds—ostriches or cranes. With regard to a second style of imported pottery, we quote the Catalogue:—

"The black bowls with incised patterns in white are also certainly foreign. No such pottery is known in Egyptian make; but it resembles a finer pottery which has been found in several places with remains of the XII dynasty. The whole of this black incised ware is imported, and bears most resemblance to the earliest Italic black ware found with neolithic and copper tools. Similar fragments have been found in the lowest level of Hissarlik."

The assumption at present is that our non-Egyptian dwellers on the west bank of the Nile, who were apparently akin to the allied races of the Libyans and Amorites, imported this pottery from the home of their parent race on the shores of the Mediterranean. From time to time some few examples of the native and imported pottery and of the characteristic stone vessels of this people have found their unrecorded way into the general antiquity market. It is a suggestive fact that the main centres of this distribution have been Abydos and Gebelên—that is to say, the termini of the two main roads by which the Libyans

would enter Egypt from the Oases. The race which we will therefore provisionally call the Western race, as distinct from the dynastic race which entered Egypt by the Hammamat Valley, were even more exquisitely skilled in flint workmanship than in the manufacture of hand-made pottery. At Stands 1 and 17 some of their stone implements may be examined, and also closely compared with a series of palaeolithic flints found on the top of a limestone plateau 1,400 feet above the Nile, and with flints of intermediate period. The people also wrought for themselves flint bracelets (Stand 15) and glazed with color the quartz beads of their necklaces. And lastly, the curious rude slate figures which have hitherto reached museums and collections only through the hands of plunderers and traders are now traced to this same distinct people of the Nile Valley, to the same fine workmen who made the Abydos flints and the Gebelên pottery.—*Academy*, July 6.

TOMB OF SENMUT.—"It may interest readers of the *Academy* to know that Prof. Steindorff and I discovered a few days ago the tomb of Senmut, the celebrated architect employed by Queen Hatshepsu to plan and superintend the building of her beautiful temple at Deir-el Bahari. The tomb is situated in the uppermost stratum of the Gebel Sheikh Abd el Gurneh, and consists of three chambers, all of which were elaborately painted.

"Unfortunately, it is now in a very bad state of preservation, but I have just finished copying all that remains of the inscriptions and paintings. A full account of the tomb will be published in an early number of the *Zeitschrift für ägyptische Sprache und Alterthumskunde* by Prof. Steindorff and myself."—PERCY E. NEWBERRY, in letter from Egypt to *Academy*, April 20.

THE SQUATTING SCRIBE AT GIZEH.—Recent excavations by M. de Morgan in the northern portion of the necropolis of Sakkarah have brought to light a mastaba of fine white stone. Upon the right side of the long corridor are two large *steles*, in front of each of which was a statue. The first represented was a man seated, and was an excellent piece of Egyptian portrait sculpture. The second, the new scribe, was squatted in front of the second *stele*. It is about the same size as a similar statue in the Louvre, which it resembles so closely that the two statues might almost be described in the same terms. The new statue, however, represents a younger Egyptian, whose muscles were less developed. The style of this statue is that of the v dynasty, and in technical detail approaches so closely the statue of Ranofir that we may ascribe them to the same hand.—G. MASPERO, in *Mon. et Mem. Acad. Inscr.*, T. I., p. 1, with fine photogravure.

A NEW GREEK PAPYRUS.—Among the treasures acquired by Mr. Flinders Petrie last winter in Egypt is a roll of papyrus, 44 feet long, and covered on the recto side with 68 columns of Greek text. As usual, the roll had been broken, so that in every column there is a gap rather above the middle. Many of the outer or opening columns have been hopelessly injured, but there still remains a large quantity of text, written by several hands in a good clear writing, unmistakably of the III century B. C. The columns have been laid down on paper by Mr. Petrie with his usual skill, and Mr. B. P. Grenfell, who was on the spot, undertook the decipherment and transcription. Last week I had the opportunity of reading through and verifying with him his very acute and careful transcription, and helping him in determining the date and other problems which suggested themselves.

The result of our joint inquiry is so far as follows: The whole roll contains a series of ordinances regarding the control of State monopolies, and the conditions under which they were to be let to tax-farmers, with reservations protecting the State from loss, the farmer and the publican from mutual overreaching. The first nineteen columns, which are very much destroyed, seems to contain general regulations. Cols. 20–34 contain the regulations for the growth of vines and the making of wine, which was all under strict supervision, in order to protect the speculators who had bought the right of selling the wine—in fact, the wholesale vintners—as well as the State, which claimed a tax of one-sixth of all produce. This section concludes with formal decrees from the sovereign. The rest of the text is concerning the parallel regulations for oil, which are the more complicated as four kinds of oil are concerned—those made from the sesame, from the croton plant, from a sort of poppy and from gourds. There is no trace of the existence of olives, or of olive oil, in the country; but the very strict regulations against importing foreign oil by way of Alexandria of Pelusium show that its competition was feared.

Into the details of this legislation it would not be possible to enter without a long dissertation, and, indeed, many of them are still obscure, though they have already thrown great light upon the problems which I have left unsolved in my Vol. II of the "Petrie Papyri." There are several curious words, or words used in unusual senses, which are an obstacle to our comprehension, but which will help to extend our yet imperfect knowledge of Hellenistic Greek.

But probably the reader is already impatient that I have postponed to this point the all-important question of date. Happily we can give a definite answer, provided our arguments be sound. The two dates given in the headings of ordinances are "the twenty-seventh year of Ptolemy, the son of Ptolemy, and his son Ptolemy," and the twenty-

third year of the same reign. The occurrence of this curious formula in the published "Petrie Papyri" (Vol. II, p. 71), among papers exclusively of the second and third kings of the name; the character of the writing and the figure 27, which is beyond the actual years of the third Ptolemy's reign, all tend to make us assume the years 264 and 260 B. C., in the second king's reign, as those in which this great document was written.

There are other contributory arguments. Among the twenty-seven nomes enumerated (for the regulations extend over all Egypt) there is no Arsinoite nome, but in the place where we should expect it *the lake* is mentioned as a nome. This was the ordinary name of the Fayûm before Queen Arsinoe founded the great new settlement of veterans there, whose wills and other papers were published in the first volume of the "Petrie Papyri." We find, therefore, that in the twenty-third year of the king the nome had not yet received its new title. Unfortunately, the columns under the twenty-seventh year do not refer to it. In the twenty-ninth year the new nome was already established. But the collecting of the sixth for Queen Philadelphus—apparently in honor of her deification—appears under the text of the year twenty-three. No other queen, no titles of state, no other indication of the reigning sovereign, are to be found. But what I have given is enough to make us sure that we have before us the earliest papyrus of the kind, and that it will afford us materials for determining more closely the vexed chronology of the life of this queen, who influenced her country more than any of her successors till we come to the notorious Cleopatra. Parenthetically, I may add that Mr. Petrie has also brought back a *stele* containing a hieroglyphic text of the same period, in which an Egyptian high officer, a steward of the same queen, commemorates that he rebuilt a temple at Koptos under her orders.

I propose to call this great new papyrus, the longest and fullest of all our fiscal documents, for convenience sake, the "Monopoly Papyrus." It will presently be edited by Mr. Grenfell, when a good many stray fragments will, I hope, have been set in their places, and some puzzles in deciphering, which still remain, have been solved. Its relations to the documents in the second volume of the "Petrie Papyri" I shall discuss in the forthcoming appendix to that volume, which will contain the autotypes of the narrative of the third Syrian war.—J. P. MAHAFFY, in *Athenæum*, July 21.

Since then Mr. Grenfell has brought back from Egypt not only more fragments of the great Revenue Papyrus—apparently parts of a separate roll and much mutilated—but a number of family papers which are of the same date and time as that now in the British Museum (CCCI) which concerns the property of a certain Druton, who lived in

the latter half of the II century B. C. The document in the British Museum is a complaint on the part of his daughter that, having inherited jointly half his property in land, a certain Ariston has encroached upon it, because they were women and the times were disturbed. The magistrate to whom they appeal is Phommotis, whom we know from other evidence to have been *strategos* of the Thebaid in 115 B. C. Mr. Grenfell has now found the actual will of Druton, besides sundry contracts made by him. These documents are dated in the early years of Soter II, the tenth king, and give us the whole series of his ancestors. Such complete series of Ptolemies have hitherto been very rare. We find that the settlers up at Thebes include Kretans and Persians, so that there must have been there, as in the Fayûm, a very mixed population. But oddly enough some of the Persians of the Epigone have purely Egyptian names, and there is even one case (Papyrus R of Mr. Grenfell's collection) in which a man called Nechutes, a Persian of the Epigone, is a protostolistes, and therefore a member of the priestly hierarchy. What could be more unexpected?

Turning to the documents he has recovered from some papyrus coffins in the Fayûm, and of the II century B C: one (K) is peculiarly interesting because it refers to the Sabbathion (Synagogue) of Aristippos, the son of Jakoub, evidently at the village of Samaria, on which I have commented in the "Petrie Papyri." But the Jews or Samaritans were not confined to this province, for in another fragment (O) Mr. Grenfell has found a complaint that a man has been swindled in the purchase of a horse from a Jew called Danooul.

A good many of the difficult titles and phrases in the Petrie papyri are repeated, and some of them will, I hope, be explained in these new treasures. The handwritings, especially that of the will of Druton, are very remarkable and interesting as representing a period which was only known from the famous group of papers from the Serapeum, and some of the older and well-known specimens at Turin, *etc.* The present lot must have been found in an earthen vessel, as they are chiefly the family papers of a single house. They will shortly be published by Mr. Grenfell, in addition to some fragments which I brought home in 1893, and which are hardly worth a separate work. However, our store of Ptolemaic papyri is increasing rapidly, and there will soon be a whole library from these pre-Christian times.

Votive Inscription.—But since Mr. Grenfell showed me his treasures a new surprise has occurred. I had received from Egypt the squeeze and copy of a mutilated stone found at Dimêh (in the Fayûm) by my friend Mr. Wilbour, and dated in the year 104 B. C. (Cleopatra III and Ptolemy Alexander). The conclusions of the lines being lost, it

was in some cases impossible to restore the text, though the general sense was plain. It was the votive offering of a certain Dionysius to Isis and Harpokrates and some other god, on behalf of the queen and king, in commemoration of his having finished some road-building operations. Upon communicating these facts to Prof. Wilcken, of Breslau, he replied that Dr. Krebs had sent him a squeeze of another mutilated text, containing only the ends of lines, but that he suspected from the general tenor of both that they might fit together. As soon as I looked at the copy of Dr. Krebs' part which Prof. Wilcken very kindly sent me, I saw that it was so, and we have thus recovered the whole of a very curious text, for only a letter (or two) is lost along the fracture. Even so, there are still many problems to be solved, and I hope to be allowed to publish the whole in the forthcoming number of *Hermathena*.—J. P. MAHAFFY, in *Athen.*, June 1, 1895.

ALEXANDRIA.—CAN WE EXPECT ANY DISCOVERIES?—Mr. Hogarth writes from Alexandria on April 25, 1895: "The question whether any notable remains can be recovered now of the great city which was the burial-place of Alexander, the rallying centre of Greek letters, the greatest of Jewish colonies and the most notable cradle of Christianity, has been asked so often and met always by so uncertain a response, that it appeared worth while to obtain even negative evidence on the point. Although several attempts have been made by excavators, including Dr. Schliemann, their frequent omission to publish their results, and the unsystematic character of their work, left the problem still open up to this season.

"In the course of two months' work I have endeavored to solve it, and my conclusions, though negative, are definite. With the help of Messrs. E. F. Benson and E. R. Bevan, of the British School of Archæology at Athens, I have made exploratory borings about the central quarter of the ancient city, including the region of Fort Komal Dikk, the reputed site of the *Soma*, and in the eastern cemeteries. The Service des Antiquités gave us *carte blanche*, the military authorities offered facilities, and private owners of land showed a readiness to advance our exploration, for which we cannot be too grateful.

"These borings as a whole have demonstrated:—

1. That over all the central part of the Roman town there lies a deposit from 15 to 20 feet thick, mostly composed of Arab living-refuse, and singularly deficient in objects of interest.

2. That such remains as exist in the Roman town are in very bad condition; everywhere they present the appearance of having been ruined and rifled systematically. Walls are destroyed to pavement level and pavements ripped away.

3. That immediately below (sometimes at or even above) the Roman level water is tapped. Even tombs are found now to be below the inundated line. The soil must have subsided, and the stratum, earlier than Roman, be submerged for the most part. Neither in this stratum, therefore, nor in that immediately above, which is still very damp, can papyri be expected for one moment. The fact of such subsidence is proved amply by the aspect of the foreshore of the Great Harbor. The foundation-courses of large buildings, not earlier than Roman, gleam in the sea, and the low cliff, composed entirely of *débris*, shows sections of Roman walls and pavements right down to water-level.

"The state in which we find the central quarter accords exactly with the known fact of the destruction of the *Brachium* in the time of Aurelian. In St. Jerome's day the one rich Quarter was no more than a refuge for hermits; and St. John Chrysostom, when he said that the Tomb of Alexander was as though it had never been, seems to have spoken sober truth. The local collections of antiquities and reports obtained from local *savants*, builders, contractors for drainage works and the like, all demonstrate that up to now nothing first-rate of the Greek or Græco-Roman period has been unearthed in Alexandria, and very little that is even second-rate. The reward of tomb-riflers in recent times has been the leavings of earlier riflers; and ruined walls at pavement level, and the most broken of *débris*, have constituted the only return for the money and time spent in excavation in the town itself.

"I feel convinced that no great mine of museum-treasures remains to be explored under Alexandria; that its libraries have perished utterly; that all that exists of its Mausolea is plundered ruin; that the glories of the former foreshore are now represented by shoals in the port, and that its great temples, passing into churches and mosques, have been robbed of all they once possessed of value or beauty. The site is much over-built and very expensive to work, and no one could conscientiously recommend a foreign society to expend its funds upon it.

"Nevertheless, there are topographical results to be gained still, which are much to be desired. It will never be possible to write the history of the city until far more is known of its ancient plan than the investigations of Mahmud Bey el Fallaki supply. The laudable efforts of Signor Botti, director of the local Museum, have been directed to topographical ends for the past two years; and from the nature of the site the prosecution of these valuable researches is best left in local hands. Bit by bit, little by little, the map must be made, by watching here the foundation of a house, there the demolition of another, *etc.*

"I hope to furnish shortly a detailed report giving grounds for the general conclusions expressed here, and dealing with exploration in Alexandria in recent years, and more particularly that diligently conducted by Signor Botti."—D. G. HOGARTH, in *Academy*, May 18, 1895.

DEFENNEH.—In the *Jahrbuch Arch. Inst.* (1895, pp. 35–46), F. Dümmmler writes of *The Greek Vases of Tell Defenneh*, published in *Ant. Denkm., II pl. 21* (nine cuts). Aside from importations, the vases of Daphnæ fall into two classes. The first consists only of *situlae* of yellowish grey, ill-worked clay, from which the coloring has frequently flaked off. The style of ornamentation reminds one somewhat of "Rhodian" vases, though direct imitation is not to be assumed. The second class consists of vases of various shapes, the amphora being most common. In manufacture and decoration these are far superior to the first class, and show the influence of Ionia where rapid development took place in the first half of the VI century.

DEIR-EL-BAHARI.—CLEARING OF THE TEMPLE.—Mr. Naville writes: "The clearing of the Temple of Deir-el-Bahari is practically finished. This great work has extended over nearly three winters, and has occupied 215 working days. The very last days of the excavation have been productive of interesting results. In the sanctuary a heavy lintel, thrown down by mummy diggers, nearly closed the entrance from the first chamber to the second. This lintel has been raised and the door rebuilt. I was thus enabled to clear the first hall of the sanctuary down to the pavement, as well as the two next chambers. In doing so I discovered an interesting piece of sculpture, a great part of which has unfortunately been destroyed by the Copts. It shows the garden of the temple, the ponds of water in the neighborhood, and the fishes, birds and water-plants living in them. Curiously, these ponds—of which there are four—are called 'the ponds of milk, which are on both sides of this god [Amon] when he rests in his temple.' One may wonder how it was possible to have ponds and a garden in such a desolate place as Deir-el-Bahari, at a mile distance from the nearest well in the cultivated land. I have not found any traces of the ponds, but I have proofs that vegetation was artificially sustained. On the lower platform there are several round pits sunk into the rock to a depth of about ten feet. They are full of Nile mud, hardened by the watering of the palm-trees or the vines planted in them. Several of the stumps were found *in situ*. The natives told me that there are a great number of these pits, which they call *sagyiehs*, along the avenue where the Sphinxes stood. It is not impossible that in the old times the Sphinxes couched under the shade of palm-trees and tamarisks, like the rams in front of the Pylons of the temples at Karnak.

"An interesting work, which will have to be done next winter, now that the clearing is finished, is the sorting of the inscribed and sculptured stones, and, if possible, replacing them in their original positions. Coptic walls will have to be taken down, as the inhabitants of the convent have made the most barbarous use of interesting and fine sculptures. In the first year of the work I discovered a block belonging to a representation, at present unique, of an obelisk being transported on a large boat. Its forepart only could be seen. Later on I found the rudder of the boat, but the middle part was still missing. It has now been found. The obelisk is seen nearly in its whole length; it is tied to its sledge by a long parallel rope, and at regular intervals by cross-ropes over each of the wedges on which the heavy monument rests. Another sculpture, the blocks which have been found in the basement of the Coptic tower, shows a sitting colossus on a boat towed along the river by two barges with many rowers. As we know where this sculpture belongs, it will be easy to put it back again.

"Where was the tomb of Hatshepsu? is a question that has often been asked. I am now able to point to a place, of which I shall not yet venture to say more than that it is not improbable that it was her tomb. In the passage between the retaining wall of the middle platform and the enclosure we came upon an inclined plane, cut in the rock and leading to the entrance of a large tomb. The rubbish was untouched; the slope had evidently been made for a large stone coffin. Everything seemed most promising; but when we had passed the entrance, we got into a long sloping shaft reaching nearly under the Hathor shrine. The shaft ended in a large chamber, in the middle of which lay a quite plain wooden rectangular coffin, containing bones, and bearing only a few hieratic signs. Evidently this tomb had not been made for so poor a burial; and as there were no signs of plundering, the natural conclusion is that the corpse for which it was destined never was put into it. If we remember the hatred with which Thothmes III pursued his aunt's memory—his efforts not only to wipe away the record of her life, but even to annihilate her *ka*, her 'double' in the other world—can we suppose that he would have allowed her body to be buried sumptuously in the tomb which she had prepared? Would he not rather have destroyed her body or deprived her of burial? It is, therefore, not impossible that this tomb, discovered in the passage close to the Hathor shrine, was that which Hatshepsu had prepared for herself.

"The day before the date I had fixed for closing the work—while completing the clearing of the same passage—quite unexpectedly the workmen came upon a large foundation deposit in a small rock-cut pit, about three feet deep. The pit was covered with mats, under

which lay first a few pots of common earthenware; afterwards, about fifty wooden objects, the models of an implement, the use of which I do not understand, and which we will call for the present winnowers. Each one of them bears the inscription: 'The good god Ramaka, the worshipper of Amon-el-Teren (Deir-el-Bahari)'; then we took out fifty wooden hoes, four bronze slabs, a hatchet, a knife, eight wooden models of adzes and eight large adzes with bronze blades; at the bottom ten little pots of alabaster, and also ten little baskets, which I regard as moulds for bread. All the wooden or bronze objects, and also the alabaster pots, bear the same inscription. These things have no artistic beauty; there is no precious metal or stone among them; but they are interesting as historical evidence. They are very similar to a set of deposits of Thothmes III, discovered by Mariette at Karnak, and now exhibited in the Gizeh Museum.

"The principal work of next winter will consist in repairing and propping up walls which would go to ruin, and also in putting in their places all the inscriptions which we may be able to reconstitute. Hitherto travelers have often left Deir-el-Bahari unvisited; it is now one of the most interesting sites on the west of Thebes."—EDOUARD NAVILLE, in *Academy*, April 13.

ESNEH.—COPTIC CHURCHES.—Prof. Sayce writes: A week before my arrival at Esneh a curious discovery had been made by the fellahin about a mile west of the Mohammedan tombs, which stand on the edge of the desert behind the town. They found there two subterranean Coptic churches, and what was apparently the house of the priest, also subterranean, and all, of course, now buried under the sand. Such subterranean buildings must be of early date, as they imply that the Christians had to conceal themselves from persecution. Mr. Dienisch took me to see them, and he found that since his previous visit, six days before, Mohammedan fanaticism had already defaced or destroyed most of the saints' heads which covered the east wall of one of the churches. Fortunately, Mr. Mallett, who has nearly accomplished his arduous task of copying the hieroglyphic texts in the temple of Esneh, accompanied Mr. Dienisch on his first visit and copied the Coptic inscriptions. The paintings which remain are still as fresh as when they were first made, and are excellent specimens of Byzantine work. One representing the Virgin and Child is especially good, though it will probably have been destroyed by the Mohammedan iconoclasts before this letter reaches England. One of the churches seems to have been dedicated to St. Eenas, and in the east wall of the priest's house is an oratory.

CAIRN TOMBS.—Some four miles further west in the desert we came across a large number of tombs in the shape of huge cairns of un-

wrought stones, which must have been brought from a considerable distance. I shall have something to say about these extraordinary monuments in another letter, and will now only add that a little to the north of the Mohammedan tombs a cemetery of the sacred *latus* fish has been discovered, and scores of mummied fish are lying there on the ground. The cemetery is not more than a quarter of a mile from the spot where, according to the French map, the northern temple of Esneh formerly stood.—*Academy*, March 23, 1895.

Prof. Sayce adds in a letter dated Cairo, April 17, that the stones of which these cairns are built must have been brought from the mountains some miles to the west. Mr. Floyer has discovered similar cairns opposite Gebelen, but they appear to be of small size. It is difficult to conjecture when and by whom such cairns were erected. In those opened by Mr. Floyer, nothing was found except a few bones, not even some implements.—*Academy*, March 23 and May 4.

HESSEH.—Prof. Sayce writes: "On the island of Hesseh, south of Bigeh and Philae, Lord Amherst of Hackney and myself made a discovery of some interest. On the western side of the island is a hieroglyphic *stele*, inscribed in the words: 'Pe-Hor, governor of the land of the Temple,' from which it may be inferred that a temple once existed there. Tombs of the Roman period also exist on the western side of the island, as well as at its southern end, where the natives have disinterred a stone sarcophagus. Those on the west are excavated in the rock in the form of square chambers, the mummies of the dead being buried in them in sarcophagi, sometimes of stone, sometimes of terracotta. A libation table supported on obelisks of stone was placed by the side of it. The tombs, however, were afterwards re-used by the Copts, a number of corpses being crammed into a single tomb. In one of them Mr. Newman picked up a fragment of a Demotic inscription; in another Lord Amherst found part of a libation-table in honor of the son of the Nubian 'chief' Mesta-Khnum, who died at an early age.

"Lord Amherst took me to see the tombs, and we then explored the northern end of the island. Here we found more tombs, this time of vaulted brick on stone basements, and below them, not far from the 'bab' of the Cataract, was the site of a temple which had subsequently been converted into a Coptic church. The altar of the church had been supported on an upturned granite pedestal, on one side of which were cavities for the feet of three statues, while on another I found a Greek and a Demotic inscription. The Greek reads:—

(1) ΒΑΣΙΛΕΑ ΠΤΟΛΕΜΑΙΟΝ ΚΑΙ ΒΑΣΙΛΙΣΣΑΝ ΚΛΕΟΠΑΤΡΑΝ.
(2) ΘΕΟΥΣ ΦΙΛΟΜΗΤΟΡΑΣ ΚΑΙ ΠΤΟΛΕΜΑΙΟΝ ΤΟΝ ΥΙΟΝ ΑΥΤΩΝ.

Then comes three erased lines, over which has been engraved in large letters: ΙϚΙϚ ΚΑΙ ΩΡΟϚ. Next follow two lines of Demotic, the second of which has been erased, and the first (which is a translation of the Greek) ends with the names of 'Isis and Horos.'

"Here, then, we have a memorial of the ill-starred Ptolemy Eupator, who must have been a boy at the time the monument was made, as the cavity in which his statue stood, between those of his father and mother, is of relatively small size.

"Bases of royal statues with Greek inscriptions are rare in Egypt: indeed, I know of only one other, which is now in the Museum of Alexandria. Curiously enough, this also is dedicated to Philometor (though not to his son and wife), while there are traces of erased lines, in place of which the names of Isis and Horos have been engraved. Could this monument have originally come from Hesseh? At all events it would appear that the temple of Hesseh was dedicated to Isis and Horos."

LAKE MOERIS.—In the *Rev. Critique*, 1894, II, p. 73, M. Maspero treats of the question of Lake Moeris, in which once again he rejects the hypothesis of Linant, almost universally admitted. He concludes: "The entire structure of theories to explain classical Moeris rests upon a single text, that of Herodotos. Other authors merely reproduce Herodotos in applying to Birket Kéroûn what Herodotos had said of Moeris. Herodotos had seen the Fayoum at the time of the inundation; he had mistaken for an artificial lake, serving as a reservoir, the whole extent of water comprised between the dykes which enclosed the basin of the Fayoum."—*Rev. Arch.*, 1895, p. 126.

TUNIS.

THE HIPPODROME OF DOUGGA.—Northwest of the ruins of Dougga, some hundreds of metres from the enclosing wall of the acropolis, is a long rectangular field of well defined limits. A long wall carefully built indicates the presence here of a considerable structure in antiquity. The purpose of this building was for a long time doubtful, but now may be recognized as the site of an ancient hippodrome. Here may be seen the rounded extremities of the *spina*, also the *podium* behind which were the spectators' seats. The *spina* was about 180 m. long, so that the course for the races was in length one stadion. Some fragmentary inscriptions were also found. This hippodrome dates from the years 223–225, within a century of which time there arose in the neighborhood of Dougga many buildings whose ruins make this part of Africa one of the richest fields for the archæologist. —DR. CARTON, in *Rev. Arch.*, March–April, 1895, p. 229.

TRIPOLI.

THE MAUSOLEUM OF EL'AMROUNI.—Tripoli has recently furnished a monument which recalls in some measure the celebrated mausoleum of Dougga. It is a tomb decorated with basreliefs, bearing a double inscription—Neo-Punic and Latin. It was discovered at a place called El'Amrouni, half way between Douîrat and Nâlout, on the ancient Roman road from Tunis to Ghadames. The ruins were buried in the sand in the neighborhood of other tombs of less importance. Only the base composed of four large steps was still in place; all the upper portion had fallen down and the materials were buried. After careful excavations some thirty pieces of cut stone were recovered, consisting of mouldings, sculptures and reliefs in a remarkable state of preservation. The monument was formerly about 16 m. high. It was composed of two stages surmounted by a pyramid. The tomb chamber contained four niches, and was entirely filled with sand. The mausoleum was quadrangular, the east and the west bases being larger than the north and south.

The eastern façade presented at the base a small door which entered a small room. At the first story between two Corinthian pilasters was a basrelief representing the departed and his wife. Immediately above was a Latin inscription, then a Neo-Punic inscription, and finally the upper basrelief. The basrelief representing Orpheus charming the animals, and higher up a relief representing Orpheus and Eurydike. The north and south sides were apparently decorated each by a single relief representing Orpheus rescuing Eurydike and Herakles rescuing Alkestis from Hades. Two inscriptions are the same, though in different languages. The Latin inscription reads:

DIS · MANIBVS · SAC ·
Q APVLEVS · MAXSSIMVS ·
QVI · ET · RIDEVS · VOCABA
TVR · IVZALE · F · IVRATHE · N ·
VIX · AN · LXXXX · THANVBRA ·
CONIVNX · ET · PVDENS · ET · SE
VERVS · ET · MAXSIMVS · F ·
PIISSIMI · P · AMANTISSIMO · S · P · F

M. de Villefosse has called attention to the fact that these episodes from the history of Orpheus recall the words of St. Augustine in the *Civitas Dei* (XVIII, 14). The interest of these reliefs is increased by the Neo-Punic inscription accompanying them, which is the first Phœnician inscription discovered as far south in Africa.—PHILIPPE BERGER, in *Rev. Arch.*, 1895, p. 71.

MEGALITHIC REMAINS.—Mr. Cowper writes from Malta, April 11, 1895, that he has just spent a fortnight in the Tripolitan range of hills examining a large and most interesting series of ancient remains. The importance of the series lies mainly in the elaborate character of the remains and their abundance, which prove them to be the vestiges of an important and an almost unknown civilization. "Our present knowledge of these remains appears to be derived from two sources. First from the researches of the traveler Barth, who traveled in both Jebel Tarhuna and Jebel Gharian, but whose aim was not primarily the examination of antiquities. He mentions and gives some brief description of about eight sites, but passed within a short distance of many others which he did not examine. The second traveler who has mentioned the subject was the unfortunate Von Bary, who died in 1877 at Ghat. He has left a paper in the transactions of a German society, translated into French in the *Revue d'Ethnographie*, unillustrated in the last, and, I believe, also in the first-named publication. In this paper he has given some notes on about thirteen sites which he visited.

"The sites which I have been able to visit number in all about sixty, which include most of those mentioned by Barth and Von Bary. Numerous others I saw at a distance or heard of, but found no opportunity of visiting.

"The remains in question appear to be found all over Tarhuna, and to reach into the more mountainous district of Gharian. The more complete examples consist of rectangular enclosures, well built of dressed stone, divided by lines of square columns, and including one or several megalithic monuments like enormous doorways, which are formed of jambs or uprights, with a cross stone at the top. These monuments are often, but by no means always, trilithons. They vary from 8 ft. to 17 ft. in height, and among the Arabs are known as *senams*, *i. e.*, idols. These *senams* are not orientated, and an especially puzzling feature consists of square holes which are in all cases cut into either jamb at regular intervals. What the original use of these monuments was must be a matter for future consideration, for a peculiar feature of them is the narrowness of the passage between the jambs, which almost precludes the possibility of their really being doorways, as at first sight they appear. There is, however, often on one side of them, facing the passage, a large flat stone, flush with the ground and grooved in a peculiar way which leaves little doubt that it was an altar. There are, besides, one or two other peculiar types of stone which continually occur, and which are much more mysterious. Stones with pit markings, generally seven square, are also common. I have further been fortunate enough to find four stones with carvings,

which without doubt belong to the same period. One of these at Ksæa has been mentioned, and also engraved by Barth, but his engraving is not very trustworthy. The other three have never before been noticed.

"These sites are so numerous that in parts of Tarhuna there are few slight eminences which do not bear the traces of one of these temples. Wherever a door (at present I have no better word) remains standing or fallen the place is called a *senam*, but where there is no trace of one of these they are simply known as *beni* (or *buni*) *gedim* (old buildings.) The numerous Roman ruins in the vicinity are classed by the Arabs under the same head.

"These megalithic temples (for temples I cannot doubt they were) are of an earlier period than the Roman, for the *senams* were smashed and built into Roman edifices. Moreover, the temples were continually altered and rebuilt by the Romans, who adopted them for their own uses. In these Roman buildings the doorways were often preserved, and there is reason to believe that in more modern times either superstition or other motive among the people has in some degree helped to protect them from destruction.

"Of all the sites I visited I took measurements or made rough sketch plans, and also took photographs, which will, I hope, sufficiently show the character of the remains. Were it not for the restrictions placed by the Turkish authorities for the last fifteen years upon Europeans wishing to enter the country, it is probable that these ruins would be now to some extent known.

"One word more. My acquaintance with the megalithic remains of Algeria is *nil;* but I have reason to believe that the *senams* and temples of the *senam* period of Tripoli evince marks of a much higher and more elaborate civilization than the Algerian series. The megalithic remains of Mnaidra and Hajiar Kym, in Malta, which are well known, certainly belong to a far ruder type, and though it would be rash to say that there is no connection between these remains and those of Tripoli, it is, at any rate, certain that the connection is not intimate." —H. S. COWPER, in *Athenæum*, May 18, 1895.

ASIA.

BABYLONIA.

EARLY ASTRONOMICAL OBSERVATION.—On the 29th of August, 11,542 B. C., the star of Sirius or Sothis was visible during an eclipse of the sun. M. Oppert, who is the author of this calculation, thinks that this phenomenon, which was the ground for the Sothic cycles, was observed in the Island of Tylos, in the Persian Gulf, the cradle of

Chaldæan civilization. We would have then in this by far the most ancient date known to history. To this Salomon Reinach replies that it seems unscientific to put humanity, that is to say civilization, at such an early period, since humanity must have been very civilized in order to observe such an astronomical phenomenon and to preserve the remembrance of it.—*Rev. Arch.*, 1895, p. 123.

THE NUDE FEMALE FIGURE NOT OF BABYLONIAN ORIGIN.—At a recent meeting of the *Académie des Inscriptions*, M. Salomon Reinach read a paper upon the representation of female nudity in Greek and Eastern art. His main object was to disprove the generally received theory that nudity in classic art is ultimately derived from a Babylonian source, the image of the goddess Istar. He maintained that there was no nude divinity in the Babylonian pantheon. Istar, as a warrior goddess, is represented clothed and in armor; if she disrobes herself for her descent into hell, that is her humiliation. On the other hand, there has been found in the Archipelago and at Troy, dating from about 1200 B. C., statuettes of nude females, and a very ancient tumulus in Thrace has furnished a similar example. We know that there existed at the same period in the Greek islands statues of women of life-size, one of which is now preserved at Athens. M. Reinach suggested that some of these statues might have been carried up from the coast by a Babylonian conqueror, and then become objects of worship. In this way he would explain the presence on cylinders of a nude goddess, who is sometimes placed upon a pedestal. It was, then, from prehistoric Greece that the type of nude divinities penetrated to Babylonia; the same type maintained itself in Phœnicia, whence it passed back to historic Greece, and so to Rome.—*Academy*, May 4, 1895.

Since then M. Reinach has published his paper in the *Revue Archéologique.*

TELLO SIRPURLA.—THE SILVER VASE OF AN EARLY KING.—We have already referred in the JOURNAL to a silver vase found by M. de Sarzec during his excavations at Tello in 1888. It has only recently been cleaned by M. Heuzey, who has studied it in the museum at Constantinople, and publishes an article upon it in the *Monuments et Mémoires*, T. II, pp. 5–28. This vase, which is the only object in precious metal thus far found at Tello, is the earliest object of its kind in existence, as it dates from about 4000 B. C., if not earlier. In form it is extremely beautiful, reminding of a certain type of Chinese or Japanese vases of ovoidal shape, resting upon a four-footed base and ending in a plain straight mouth. Its technique is also perfect. It is beaten into its form out of a single sheet of silver, and French experts in metal declare that they could not do better at present. Its

total height is 35 cm. Its diameter is 18 cm. Its form is that of a jar, or to use the corresponding Greek term, *pithos*. It has no handles. The most interesting part of the vase is the series of figures incised in the metal, which were brought to light by M. Heuzey's patient handiwork. Encircling the centre of the body of the vase is a broad band on which is reproduced four times the group which has been identified by him as the coat-of-arms of the city Sirpurla. Is is a lion-headed eagle facing the spectator with outspread wings and holding with his extended claws two lions *passant*. This exact group is seen on a number of basreliefs found at Tello, one of which was illustrated by M. Heuzey in the first number of the *Monuments et Mémoires*. The lion-headed eagle represents the city subduing its enemies in the shape of lions. In two out of the four cases the lions are replaced by other animals: once by two deer and once by two wild goats. In the former M. Heuzey would see typified the field inhabitants of the plain and in the latter the hardy mountaineers. The principle of symmetrical and alternating repetition which is exemplified in these four groups is thoroughly Asiatic and different from the spirit of Egyptian art, and it is interesting to find it at the very beginning of Babylonian civilization. A similar principle is exemplified on the narrow point immediately above the main decoration. Upon it are outlined seven reclining cows with right fore-leg extended and raised head. Here we find the principle of repetition and the first type of an idea which was handed down to the Assyrians and the Greeks of zones of animals, the best example of which are found on Assyrian shields and Phœnician dishes and Greek vases. Besides these two rows of subjects, the vase bears an inscription by which this vase is dedicated to the god Nin Ghirsu by Entemena, the Patesi or high priest of Sirpurla. The inscription would lead one to believe that this vase was but part of the treasury of similar objects dedicated by this ruler to the god. Now, Entemena is the fourth king in direct descent from Ur Nina, who was the founder of the local dynasty. This ruler is regarded by M. Heuzey as considerably earlier than Sargon I, whose date is 3800 B. C. This he regards as proved by the earlier character of the monuments of these early rulers of Sirpurla, when compared with monuments of Sargon I and Naramsin. The animals outlined upon the vase are executed with remarkable skill, as long as they are given in profile. As is customary with the early Babylonian artist, the forms are made heavy in contrast to the lightness of Egyptian art. The outlines of the animals, of course, are especially true to nature, but the artist failed directly when he attempted, as early Babylonian artists seem to have been fond of doing, to execute the full face. This he does in the case of the lions and the lion-headed

eagles with disastrous results. He is very fond of giving the details of both the mane of the lions and the wings of the eagles, though otherwise he confines himself to a slight indication of some of the muscles.

FOUNDATION STONES OF EANNADU.—At a meeting of the *Académie des Inscriptions* M. Heuzey read a paper upon some Chaldæan monuments of great antiquity, of which he had received impressions from M. de Sarzec. In particular he dealt with two foundation-stones, upon which Eannadu, the warrior of the Column of the Vultures, had inscribed a history of his reign. One of these contains no less than 150 compartments of writing. Beside the long religious litanies, which comprise almost the entire literature of this remote epoch, these annals are at present the only contemporary historical documents that we possess. It appears that Eannadu had worked hard to expand and fortify the towns or detached quarters which formed the agglomeration of Sirpurla, particularly Uruazagga, "the holy city." The catalogue of his conquests includes the countries of Elam and Isban, his traditional enemies, and also the historic cities of Erech, Ur and the City of the Sun (evidently Larsam). Mention is made of an alliance between some of these with the land of Kish. On the Column of the Vultures, Eannadu bears the style of King of Sirpurla, which he also gives to his father Akurgal and his grandfather Ur-nina; but on the foundation-stones he only uses, for them as well as for himself, the religious title of *patesi*, which he boasts to have been invested with by Istar, the goddess of battles. These statements throw light upon the theocratic character of early Chaldæan civilization, while they show the important part that Sirpurla played from the beginning of history. —*Academy*, May 18, 1895.

A NEW ASSYRIAN STELE.—In Vol. XVI of Maspero's *Recueil de Travaux*, Father V. Scheil, writing from Mossoul on May 21, 1894, publishes a cuneiform text of great importance. It is a *stele* of Bêl-kharran-bêl-usur, admirably described by the learned writer, whose introduction, transcription and notes are excellent at such a distance from literary apparatus. Destined apparently for Constantinople, we owe the Reverend Father warm thanks for apprising us so quickly of its contents. There can be no question of its value for an estimate of the internal affairs of Assyria.

While we know that the greater officials of the kingdom and the prefects of the chief cities took their turns with the king himself in giving name to the year, and while here and there we had glimpses of generals and ministers, as a rule all were eclipsed by the glory of the monarch. The tone of many of the dispatches sent to the kings of Assyria is far from subservient; but though all along we have suspected that the empire was not the creation of the king and that his

power was founded on the ability of his subordinates, he usually omits to state his indebtedness.

In this inscription of Bêl-kharran-bêl-usur (Eponym in 741 B. C. and again in 727 B. C.) we see somewhat behind the scenes. Of this officer little is known beyond what he tells us here himself. As nagir êkalli he ranks next to the Tartan Nabû-danin-ani under Tiglath-Pileser III, and later as prefect of Gozan at the accession of Shalmaneser IV. His name also occurs on a mutilated tablet, K. 12990, in the British Museum (Bezold Cat., K. Coll., Vol. III) and possibly elsewhere.

His own record is remarkable. He founds a city, builds and endows its temple, gives it a constitution, supplies it with roads, apparently on his own initiative, at his own expense and without any reference to his monarch beyond a formal acknowledgment of his subordinate rank. He calls his city after his own name; he blesses the successor who shall respect his monuments and the freedom of his city on the one hand, while he curses the careless or mischievous custodian of posterity on the other with a regal grace. His reference to his position as due not solely to Tiglath-Pileser, but to "his lords in their high commission and assured favor," seems to point to something short of absolute monarchy. Perhaps at that time the king was only *primus inter pares;* and it is at least noteworthy that Tiglath-Pileser takes care to record that certain of his conquests were assigned to the province of the Tartan or of the Rab-bi-lul, a compliment subsequent monarchs do not find it necessary to pay.

Father Scheil's transcription of the text, as he publishes it, is very doubtful in places, and his version does not agree perfectly with either. The text, if correctly copied, was carelessly inscribed, so I append a new version of the text, with some notes explanatory of my rendering, trying to be as literal as possible:—

1. Marduk, great lord, king of the gods, holder of the ends of heaven and earth,
2. Populator of cities, establisher of towns, universal ordainer of the temples of the gods;
3. Nabuû, scribe of the gods, wielder of the glorious tablet-style, bearer of the tablet of the destiny of the gods,
4. Director of the Igigi and the Anunnaki, donor of sustenance, giver of life;
5. Šamaš, light of the lands, judges of all cities, protection of regions;
6. Sin, bright shiner of heaven and earth, bearer of the upraised horns, who clothes himself with brightness;
7. Ištar of the stars, brightness of heaven, to whom prayer is universally good, who receives petitions.

8. The great gods, to all of them, hearers of his prayer, his helpers, his lords:
9. Bêl-kharran-bêl-usur, nagir of the palace of Tiglath-Pileser, king of Assyria, venerator of the great gods,
10. There sent me forth the mighty lords with their high commission and assured favor.
11. A city in the wilds and the wastes I chose, from its foundation to its roofs, verily I finished.
12. A temple I made, and the shrine of the great gods therein I raised.
13. Its temen, I like a piler of a mountain founded, I settled its foundation for ever and ever,
14. Dur-Bêl-kharran-bêl-usur, in the tongue of the people, I called its name, I directed roads to it,
15. An inscription I wrote, and the image of the gods on the top I made, in the dwelling of the divinity I set up
16. Endowments, sacrifices, incense for those gods I established for ever.
17. Who ever hereafter that Aššur, Šamas, Marduk and Rammân, shall graciously name and send there.
18. Restore the ruins of the city, of this temple, the endowments and sacrifices of those gods thou shalt not discontinue,
19. Of that city its freedom I made, its crops shall not be torn up, its corn shall not be trodden down, *etc.*

—C. H. W. JOHNS, in *Academy*, July 6, 1895.

PERSIA.

SASSANIAN VASES AT ST. PETERSBURG.—The Museum of the Hermitage has been enriched by the addition of seven plates and six silver cups discovered in the region of Perm and Viatak. One find made near the river Tomis consisted of five plates, four cups and six necklaces. This included one plate of Byzantine workmanship (V–VI cent. A. D.) with Greek marks of manufacture not yet deciphered. All the other silver vessels are Sassanian. They consisted of: (1) The image of a ram in a park; (2) a lion devouring a stag; (3) a royal huntsman mounted, attacked by wild beasts. The king wears a head-dress like that of Sapor. In the lower portion of this plate may be distinguished a Pali inscription, not yet deciphered; (4) a plate with the image of a woman clothed in a long robe seated upon a winged monster and playing upon a wind instrument. On the other side of the plate a Pali inscription, which has not yet been deciphered; (5) a plate with the image of two warriors clad in scaled breast-plates; one makes use of a bow, the other of a javelin. On the ground are two small round shields, two axes, two broken swords, as if this was the last episode of

a long fight. M. Smirnow, who has written an account of these plates, thinks that the explanation of this one may be found in Persian poetry. Amongst the other objects may be cited a cup, the handle of which is ornamented with the image of a bearded Persian with earrings, also several cups decorated with various motives, such as peacocks, birds amongst serpents, *etc.*—*Rev. Arch.*, 1895, p. 129.

SAPOR AND VALERIAN.—In May, 1893, the Cabinet des Médailles was enriched by the addition of an ancient cameo of unusual interest to antiquarians and historians. The stone is a sardonyx of three layers, the base is dark brown, the middle layer on which the relief is carved is pale white; the upper layer, which is utilized for the definition of certain details, is russet color. The stone is in the shape of an ellipse. Its two diameters are 103 mm. and 68 mm. and its thickness 9 mm., being one of the largest ancient cameos in existence. It represents a Persian king of the Sassanian dynasty on horseback taking prisoner a Roman emperor, who is also mounted and defending himself. The helmet of the Persian king is surmounted by a large globe, which according to Adrien de Longperier was a symbol of the solar sphere. His shoulders are surmounted by smaller globes. Pendant bands flutter from his diadem and girdle. The Roman emperor, beardless, is crowned with laurel. He wears a breastplate and the *paludamentum* flutters behind his back. He brandishes the *parazonium* above his head, while the Persian king makes no use of his sword. It was in the year 250 of our era in the neighborhood of Edessa that the emperor Valerian was taken prisoner by surprise by Sapor I, son of Artaxerxes. This event made a great stir in the Oriental world, perhaps much more amongst the Romans, and has been recounted by various authors. Valerian was the only one of the Roman or Byzantine emperors who was taken prisoner by the Persians. In the year 260, when this event took place, he was sixty-seven years of age. Sapor I, who was crowned in the year 242 and died in 272 or 273, was also an old man. The identity of the Roman emperor and of the Persian king is confirmed by numismatics, and the Persian triumph is represented also in reliefs at Naksche-roustem. Sassanian cameos are few in number and are frequently attributed to Greek or Byzantine sculptors in the service of the Persians. It seems probable, however, that this art survived amongst the Persians as an inheritance from Babylonia and Assyria.—ERNEST BABELON, in *Mon. et Mem. Acad. Inscr.*, T. I, p. 85.

PALESTINE.

NEW MILE-STONES.—The Dominican fathers have discovered at Bettir the most ancient mile-stone of the region, dating 130 A. D. It

is the eighth on the road leading from Jerusalem to Eleutheropolis. In the same district there has been found the epitaph of a legionary, of which P. Germer-Durand has given a new transcription. The mile-stone in the neighborhood of Jerusalem dates from the Kaliphate of Abd-el-melik, and contains the most ancient Arabic inscription which has diacritical points. Together with this document M. Clermont-Genneau communicates a dedication by the x legion *Fretensis* to Trajan and a mile-stone of Adjloûn, with the name of the legate, P. Julius Germinius Marcianus, 162 A. D. At Gerasa there has been found a dedication to Antoninus and two other texts; one of them mentions the date 294, which corresponds nearly to the year 215 A. D. At Mzerib several texts have been copied, one of which is in verse. Another metrical epitaph has been found at Nawa, which contains a mention of Alkinoos.—*Rev. Arch.*, 1895, p. 121.

EXPLORATION OF MOAB.—During the winter months, when excavation becomes difficult or impossible at Jerusalem, Dr. Bliss received the sanction of the Committee of the Palestine Exploration Fund to undertake a journey to the Land of Moab, including the examination of Medeba, Kerak and other places of historical interest beyond the Dead Sea. Dr. Bliss had the special advantage of a letter of recommendation from Hamdy Bey, director of the Museum of Constantinople. He was received most cordially by the governor of Kerak, and was afforded the fullest permission to measure and make plans of buildings, to copy inscriptions, *etc.* Among other things, he discovered a previously unknown Roman fort and a walled town with towers and gates like the interesting town of M'Shîta. After a journey of very great interest he got back to Jerusalem on April 2, and at once resumed the work of excavation. The committee have appointed Mr. Archibald Campbell Dickie, a trained architect, to assist Dr. Bliss in this work, especially in drawing plans, sections, *etc.* He has already arrived in Jerusalem.—*Academy*, April 27.

JERUSALEM. — HISTORY OF THE HOLY SEPULCHRE. — Mr. George Jeffery, F.R.I.B.A., has published at Jerusalem a series of plans and sketches intended to illustrate the architectural history of the buildings on the site of the Holy Sepulchre, as described by the earlier pilgrims. The plans have been made from actual measurement on the spot, so far as the difficult nature of the work permits, infinite trouble having been caused by complicated proprietorship and by sectarian prejudices. Much assistance has been derived from the recent discoveries of Herr Schick, which have demonstrated the position of the much-disputed Second Wall. The method adopted by Mr. Jeffery is to work backwards chronologically. He starts with a plan of the buildings as they were left by the Crusaders in the XII century, which is practically

identical with their present condition, except for the absence of the modern sectarian partitions and a few restorations. Next we have a plan of the (XI century) buildings of Constantine Monomachus, as described by Saewulf in 1102, before their destruction by the Crusaders; then the (VII century) buildings of Modestus, as described by Arculf and Willibald, and finally the (IV century) basilica of Constantine, conjecturally restored from the descriptions of Eusebius and Saint Sylvia. To this last is added a reproduction of the apse mosaic in S. Pudenziana in Rome, which may possibly be a contemporary representation of Constantine's basilica. By way of explanation, Mr. Jeffery has quoted extracts from the accounts of the pilgrims referred to.—*Academy*, June 29, 1895.

SYRIA.

SOME HITTITE BRONZE FIGURINES.—M. Menant in the *Rev. Arch.*, Jan–Feb., 1895, publishes a series of bronze figurines found in the Orontes. These figurines resemble especially those which have hithertofore come from Phœnicia and Sardinia. An analysis made by M. Ditte, of the Sorbonne, shows that the bronze consisted of: tin, 3.44; lead, 3.90; copper, 92.65, besides slight traces of iron. They were moulded in a single piece and rudely made. One of these identifies itself as a Hittite divinity, since it wears upon its breast a sort of phylactery containing the Hittite symbol for divinity. Both arms are free and raised. On the head is a conical cap surmounted by a plume. In this case, as in all the rest, the feet are indeterminate and give no evidence as to the style of shoes. One of the statuettes is the figure of a goddess. Another of finer workmanship had artificial eyes and still wears a silver torque about his neck and carries a silver sceptre in his hand. There can be little doubt that these figurines reflect more important monuments which have not yet been discovered.

ASIA MINOR.

MYCENÆAN AND CUNEIFORM REMAINS ON HITTITE SITES.—Little is known as yet of the results of the excavations of M. Chantre at Borghaz-Keui and at Kara-Euyuk, where he found a cuneiform text and pottery having some analogy with that of Mykenai. He is about to publish an extensive work on this subject.—*Rev. Arch.*, 1895, p. 113.

EXPEDITION OF MM. HULA AND SZANTO.—MM. Hula and Szanto have published the first results of their expedition of 1893 made on the Liechtenstein foundation. They discovered three new towns—Kasossos, Hygassos and Kallipolis. In the walls of Amyzon they found this interesting inscription: Βασιλεὺς Ἀντίοχος στρατηγοῖς,

ἱππάρχαις, πεζῶν ἡγεμόσι, [ἑτ]α[ίροις?], στρατιώταις καὶ τοῖς ἄλλοις . . . τὸ ἱερὸν Ἀπόλλωνος ΜΑΟΣΤΟΕΝ (doubtless a local epithet of the divinity). Then they studied the ruins of Alinda, its necropolis, theatre and gateway. At Kafadji they discovered contracts of rent analogous to those of LeBas, No. 323 ff. At Mendelia they copied an honorary decree in which the Mylasians and Rhodians are mentioned, also a Karian inscription which reads:—

K'*niüheeegeseaüáisaü.*

and which signifies

Ἡγησίας Αἴσου Κνίδιος (?)

At Herakleia of Latmos they discovered an inscription identifying the temple of Athena. At Kadi-Kalessi they found Byzantine paintings representing scenes from the life of Christ. Mylasa also furnished several new inscriptions. The other results of the expedition may be tabulated as follows:—

1. Eski-Hissar. Inscriptions to Zeus Labraundos, Demeter and Kore.

2. Ulash. An inscription revealing the existence of the Κασωσσεῖς of the temple of Zeus.

3. Pedasa. A new inscription.

4. Halikarnassos. Honors paid to Sylla, an ephebic inscription; dedication to Isis and Serapis; numerous Nike inscriptions.

5. Idyma. Mention of a κοινὸν τῶν . . . ωσιτενίων; name of the tribe Λοσεύς.

6. Baïr. Temple of Asklepios and an epitaph of a citizen of Hygassos, from which it follows that Hygassos is Baïr.

7. Turan-Tchiflik. Identified by an inscription as Kallipolis.

8. Pisye. Epitaphs.

EXPEDITION OF MM. HEBERBEY AND KALINKA.—MM. Heberbey and Kalinka have also forwarded to M. Reinach the results of their expedition to Asia Minor during the autumn of 1894. They recovered more than 300 inscriptions, of which two are Latin and five Lykian. At Karabuk they discovered the Κορμέων δῆμος, which according to an inedited inscription of Ibesos formed with this town and Akalissos a *sympoliteia*. Another inscription enabled them to fix the site of Apollonia at Avassari, about six miles west of Tristomo. Numerous fragments and eight entire blocks were found to complete the celebrated inscription of Opramoas at Rhodiapolis.—S. Reinach, *Rev. Arch.*, 1895, p. 111.

HALIKARNASSOS.—B. Keil has made a study of the system of enumeration employed in an inscription from Halikarnassos. One system is the simple Attic system where A = 1, B = 2, KA = 21, *etc.* In the other 1 stands for an obol, D for a drachma, 2 D for a stater

and a dash with two little circles at each extremity for 10 staters. There are also signs for fractions of obols, — = ¼, = = ½, ≡ = ¾. The article is too complex and treats of too many subjects to be here analyzed at length.—*Rev. Arch.*, 1895, p. 115.

LYKIA.—M. Imbert has made a study of names in relationship in Lykian inscriptions. The names for son, wife, family and daughter are already known. Imbert adds *tuihes* = nephew, *qahbu* = daughter-in-law, *ḍḍedi* = brother or brother-in-law, *epñneni* = grandfather, *etc.* He announces that a Corpus of Lykian inscriptions will be published by the Academy of Vienna in 1895.—*Rev. Arch.*, 1895, p. 116.

MAXIMIANOPOLIS.—A basrelief in basalt at Soueîda in the Hauran represents a scene from the Gigantomachia or according to M. Clermont-Ganneau, Zeus and Herakles appearing in the character of two emperors, perhaps Diocletian and Maximianus. In Gallo-Roman art more than one of these mythological subjects have thus been treated realistically in the details of armor and of the costume. A town of Maximianopolis existed precisely in this district, and M. Clermont-Ganneau thinks that Soueîda marks its site.—*Rev. Arch.*, 1895, p. 121.

SMYRNA. — GROTESQUE TERRACOTTAS. — Once Mr. Ruskin wrote very severely about the grotesque head sculptured on the tower of Sta. Maria Formosa at Venice. He saw in it a work of pure imagination conceived by an artist who was unworthily fond of the ugly. M. Charcot recognized in this effigy the signs of a pathological deformation of the face, signs which were reproduced with scrupulous exactness. In an article in *La Nature*, Dr. Regnault, who once made a similar study of Egyptian sculptures, proves now that certain grotesque statuettes from Tanagra or from Myrina, which were usually regarded as caricatures, are in reality faithful copies of nature. He insists especially upon the cranial deformations, and notes in the various figures exact representations of microcephaly, acrocephaly, scaphocephaly and hydrocephaly. One of these statuettes deserves especial attention. It is a terracotta of Smyrna (No. 707 of the catalogue of the Louvre) representing a microcephalous idiot, who is strangling himself by gluttony. Such an accident, it appears, frequently occurs in lunatic asylums. The gesture of the idiot carrying his hands to his neck, giving the impression of suffocation, the expression of the countenance, the form of the brain and the forehead in these statuettes are a striking reality for pathologists. M. Heuzey has recently shown by living examples that the beauty of lines in Greek art is based upon reality. Dr. Regnault on his side shows us that the same is the case for ugliness.—*Débats*, 1894, Dec. 11, quoted in *Rev. Arch.*, 1895, p. 114.

SYDE.—BASRELIEFS OF THE NYMPHÆUM.—M. Collignon has recently communicated to the French Academy of Inscriptions some inedited

sketches found among the papers of the English architect Cockerell, and reproducing four of the reliefs which adorn the balustrade of the Nymphæum of Syde. Two of these reliefs are already known by publication of Count Lanckoronski on the cities of Pamphylia and Pisidia, but the drawings of Cockerell are even in this case interesting as differing in certain details. His other two sketches reproduce basreliefs which no longer exist. One represents a Nereid rising out of the water by the side of a marine monster and a flying Eros; on the other is Selene being led by Eros toward the sleeping Endymion. This subject is treated in a painting at Pompeii and this analogy is sufficient to show the survival of Hellenistic taste in these basreliefs. —*Chronique*, 1895, No. XIX.

KYPROS.

INSCRIPTION OF HIRAM.—M. de Landau has published a note upon the Phœnician inscription of Hiram (C. I. S. No. 5.) The author believes with Schrader that the Karthadast of the text is Kition, and that the subjection of this town is attested by Menander (in Josephus *Antiq.* VIII, 5, 3.) According to him Hiram subjugated τοὺς Τιτναίους, which should be corrected to Κιτναίους. It is perhaps on this occasion that Kition received the name of Karthadast. This town would have remained in subjection from 800 to 701 B. C. under Esarhaddon. We meet in Phœnician inscriptions with a king from Karthadast. It has been supposed that the Hiram of the inscription of Kypros is Hiram I, the friend of Solomon, but M. de Landa believes this to be Hiram II, because Hiram I in the Bible is only king of Tyre, while Hiram of the text is also king of Sidon —*Rev. Arch.*, p. 109.

KRETE.

A MYCENÆAN MILITARY ROAD.—During the course of an archæological journey through Central Krete, from which we have just returned, we have come across some new landmarks of Mycenæan antiquity which may be of general interest. The remains to which we wish here to refer lie in and about the mountain mass known as Lasethi, which occupies a large area of East Central Krete, separated from Ida by the more low-lying tract once mainly occupied by the territories of Knôsos, Gortyna and Lyttos.

From the latter city a road, which seems to represent a very ancient line of communication, after skirting the northwest escarpment of this range, ascends to a *col* which from time immemorial must have formed the main portal on this side of the extensive upland plain that forms as it were the citadel of the whole range. The deep cutting

of the road at the summit of the pass, and the broad terrace formed by it in other parts of its course, point to long use and the former importance of its traffic, though it is now little more than a track. The upland plain of Lasethi is completely enclosed by lofty limestone ranges, and drains into a large swallow-hole (*katavothron*) in its northwest corner, close to the point where the old track reaches the level ground. From this point the modern road runs southward to the village of Psychro, keeping close under the hills, owing to the liability of the central part of the plain to floods in winter.

The first object of our explorations was the great cave above Psychro, the ancient remains in which have been already called attention to by Prof. Halbherr, who, in company with Dr. Hazzidakis, president of the Candian Syllogos, conducted some explorations here in 1886, and in his work on the "Cave of the Idæan Zeus" describes several votive relics here discovered. Our own researches are calculated to throw new light on this important sanctuary, and show that it goes back perhaps even into pre-Mycenæan times. That it also lasted on into classical days is equally certain. The discovery of a fragment of sculpture representing a snake coiled round a trunk or support of a statue might be thought to point to the worship of Apollo, but may, after all, connect itself with some local heroic cult. On the other hand, the parallelism of many of the earlier relics found with those of the Idæan cave, and notably the presence of votive double axes, certainly suggests the cult of Zeus; while the fact that this great cave sanctuary lay only four and a half hours' distance from Lyttos leads us to infer that it was here that the Lyttian traditions regarding the birth-place of Zeus, referred to by Hesiod, were localized; in other words, this was the *Diktaion Antron* of the Lyttians, and Mount Lasethi their Dikte. To the Prœsians, on the other hand, the more easterly Siteia range was equally known as Dikte.

That in later times the plain of Lasethi came within the territory of Lyttos, the only great town within easy access, is highly probable. But we came upon the clearest proof that in the great days of Kretan history—namely, the early Mycenæan times—these remote uplands harbored more than one walled city. About half an hour north of Psychro, and immediately below the village of Plati, rises the isolated knoll known as Megálo Kephái. Led here by the account of the discovery of early pottery, together with rumors of the existence of a *tholos*, or bee-hive chamber, we found distinct evidence of an early akropolis, including walls of large blocks of rude horizontal, and, in places, of polygonal construction; and we could even make out the course of the ascending road and traces of a gateway. From Psychro village, which also shows some early foundations, the modern road,

which, from its deep cutting, seems to follow an ancient line, runs almost straight to Agios Georgios, above which rises an isolated ridge (omitted in Spratt's map, as is also a larger one north of the village). Here, too, are abundant remains of primitive pottery and distinct traces of fortifications like those of Plati. The site is known as Kastello.

Beyond Agios Georgios the traces of the old road become still more obvious. A little south of the confluence of the Katharo (Metochi) and Koudoumalia streams it ascends to the eastern steeps of the Lasethi basin by a series of magnificent zigzags, supported below by massive terrace walls of the same primitive masonry as that of the Mycenæan strongholds below, and secured against landslips at the turning points by similar walls above. From the top of the pass the ancient road is still traceable, descending in zigzags towards the Katharo stream; the modern track, however, here breaks away and crosses the upper Katharo basin almost due east to the Metochi (farm).

Close above this a low pass, about 3,000 feet above sea level, forms the natural exit from the whole upland region of Lasethi; and immediately after passing the summit of this, an ancient road becomes again perceptible deeply worn in the mountain side, but now deserted in favour of a newly engineered road, the zigzags of which cross and recross the old line. At this point, amid groves of secular ilexes, opens out one of the grandest panoramas to be seen in Krete, embracing the mountains of Siteia, the promontories that jut out from the low intervening tract and include the site of Minoa, to the conical height of Axos and the ranges of Mirabello. About twenty minutes from the top of the pass, we observed the remains of a vast primæval fortification intended to protect the defile against an enemy coming from below. Two walls ran parallel to and near the ancient road, flanking it on either side; and from the lower end of these, above and below, two other walls branched off at right angles—one climbing down towards the bottom of the ravine, the other ascending the rocky slope above. A breastwork was thus formed some two hundred yards long with a passage for the road, and the upper part of this again made a return for another sixty or seventy yards in the direction of a side ravine in the rear of the position. Within this outer enclosure there were also traces of other walls. The walls were about four feet thick, of undressed polygonal blocks; and though the whole is now in a ruinous condition—not more than two or three courses remaining in position—it must once have been a stupendous work.

About fifteen minutes below this the road was commanded by another "Cyclopean" work, this time more of the nature of a castle

rising on a rocky knoll between the road and the ravine. It consisted of a rock-cut gate, a large rectangular chamber and two smaller ones, and, about twenty paces to the west of the gate, a tower of remarkable construction. It was partly formed of native rock, partly of "Cyclopean" blocks bedded on this, and filling out the ground-plan so as to form an angular bastion. A platform was thus raised in a most commanding position, looking out far across the valley straight towards the site of the great Mycenæan city of Goulàs, lying about four miles distant as the crow flies, and from which this pre-historic castle itself is clearly visible. It is called by the peasants τοῦ κατσοῦλι τζὴ στέρνα, "The Kitten's Cistern." Further down, where the valley widens out, was another square enclosure of the same primitive construction, a little to the right of the modern road, and traces of another on a low knoll of rock above it to the left.

Here, then, was a fortified road of primæval antiquity leading down to the rich Kritsà valley, dominated by what, so far as existing remains allow us to judge, was the greatest city of Mycenæan Krete. But the remarkable fact that at once strikes us is that the direction in which the fortifications themselves were directed points against Goulàs. It might have been expected that the rulers of Goulàs would have been able to extend their dominion over the mountain uplands of their immediate neighborhood, and that the ancient road system, which, as will be seen, seems to ramify from their neighborhood, would have been executed and fortified by them.

But the same phenomenon meets us on another side. From the same Kritsà valley, another ancient road ascends past the village of Kroustes to the southeastern spurs of Lasethi, apparently towards the village of Malles, identified by Prof. Halbherr with the site of Malla (*Antiquary*, May 1893, pp. 196, 197). Here again, about half an hour above Kroustes, the old route is guarded against a lowland attack by a series of similar stone strongholds. Among these is a natural rock supplemented by rude stone masonry, which may originaliy have formed a raised terrace, like the "Kitten's Cistern," another projecting bastion of a similar character on the side of a glen, and a wall across the top of the pass, while, on a summit above, a triangular fort of large blocks, enclosing the foundations of a square watch-tower, commands a wide view both up and down the road.

The line of pass leading from the site of Goulàs to the valley of Mirabello exhibits similar traces of an ancient road, supported by the same "Cyclopean" masonry, and at the head of the defile, beyond the district known as Lakonia, another pre-historic fort. At this spot, now occupied by a small hamlet called Peponi Khani, the road is flanked by the remains of double lines of ancient walls, from which,

on either side, as in the pass below Katharo, are stone breastworks running out at right angles. Here, again, the main line of defence seems to be directed against an enemy coming from Goulàs.

Yet it is hard to believe that these fortified roads of Mycenæan times radiating from this great Mycenæan centre were not originally the work of its rulers. Did they perhaps contemplate the possibility of an enemy invading the valleys under their walls and desire to secure their highland pastures and the access to the upland plain of Lasethi? The materials are still wanting for the solution of these enigmas; but it is interesting to remark that already at this remote period Krete presented a phenomenon only too familiar to us at the present day: the combination, namely, of lines of intercourse engineered at a great expenditure of skill and labor, with huge defensive works proclaiming that the neighbor of to-day was as likely as not to become to-morrow a hostile invader. We might be on the Vosges instead of the Kretan mountains.—ARTHUR J. EVANS and JOHN L. MYRES, in *Academy*, June 1, 1895.

REVIEW OF HALBHERR'S DISCOVERIES AND WORK OF THE SYLLOGOS.—Under the title "Notes from Krete" Dr. Halbherr gives in the *Athenæum* of June 22 a brief summary of his recent investigations in Krete, closing with a well-merited eulogy of services of the Kretan Syllogos.

HIERAPYTNA.—M. Joubin in the *Recueil de Travaux*, 1894, p. 162, publishes a phototype of a Græco-Roman relief from Hierapytna, representing an ephebe wearing a double-horned *pschent*, between a figure of Horos and Isis. The scene is placed in the temple, and is supposed by the author of the article to represent a scene of initiation. It may be that he goes too far in adding that the relief of Hierapytna fills an important gap in our imperfect knowledge of ancient mysteries. The figure of the Horos should be compared with a beautiful bronze figurine in the collection Greau, Pl. 17 of Froehner's Catalogue.—*Rev. Arch.*, 1895, p. 109.

EUROPE.

GREECE.

THEORIES OF ORIGIN AND ZOÖLOGICAL SYMBOLS IN MYKENAI.—In the *Revue Archéologique*, Jan.-Feb., 1895, Frederic Houssay advances an interesting theory concerning the origin of a number of Mycenæan forms. Upon the vase paintings in Mykenai some of the figures, such as the poulp and the argonaut, may be easily identified. Others present a single mixture of the real and impossible. To this class belongs a bird like a goose or duck. Each of these creatures has upon its

back two little appendices, which do not seem to be wings, but are like appendices of the *Lepas anatifera*, or goose-mussels, a crustacean frequently found upon floating objects. There is a legend of antiquity which has come down through the Middle Ages, and is familiar to all those who are interested in the history of the idea of spontaneous generation, that the barnacle-goose (*anser bernicla*) springs from the *Lepas anatifera*. It seems as if the origin of this legend might be traced to these strange pictures, which are birds in general aspect and crustacean in detail. In its youth the *Lepas anatifera* swims and lives freely. It has three pairs of tentacles and is formed like the lower crustacea. Later the number of tentacles increases to six pairs, and it is called a Cypris. Finally this Cypris plunges its head into some floating object; its flexible body closes together, revealing the extremities of the six pairs of tentacles; the body becomes encrusted with a shell; the six pairs of tentacles, useless now for walking, are used to capture objects and draw them to the inside of the shell. The belief that such a creature gave birth to a duck or goose is too extraordinary to be based upon observation of the animal itself. It might have been produced by the successive simplification of two pictures of animals which finally came to resemble each other. From a study of the figures of Mycenæan vases, it may be concluded: first, that the painters represented the *Lepas* as exactly as possible; secondly, that this picture, after it had been considerably simplified, came to resemble a goose; thirdly, the legend arises that animals in the shape of a goose were born in the sea upon floating objects; fourthly, the floating object is thought of as a tree which grows in the sea, and is represented in such a way as to suggest the birth of a goose upon a tree.

M. Houssay pursues the same hypothesis in other directions. Through the mediation of decorative forms found in the Caucasus, he shows how the poulp, as a decorative form, might have been transformed in the mountain regions of the Caucasus into the head of a ram. Various forms of spirals, the swastika, the heart ornament, the owl's head upon vases from the Troad, he traces to the same source.

Many of these forms have been explained with more probability as having their naturalistic origin in the Egyptian lotus. It is interesting, however, to see how far the poulp theory may be pressed to explain the same forms by one who seems to be unacquainted with the Grammar of the Lotus.

AGAIN THE SIDON SARCOPHAGI.—At a meeting of the Hellenic Society on May 27, Prof. P. Gardner described and discussed the famous sarcophagi found at Sidon some years ago, and now in the Imperial Museum at Constantinople. (1) *The Lycian Sarcophagus*, which the lecturer was inclined to attribute to the latter part of the v century

B. C. The subjects in high relief were chiefly hunting scenes, and in the horsemen there were undoubted resemblance to those on the Parthenon frieze. (2) *The Tomb of the Satrap*, which probably belonged to the same period, The subjects included a funeral banquet, a hunting scene, and the start of some warlike expedition. These latter were probably episodes in the life of the person commemorated. In style the tomb might be compared to the Nereid monument of Xanthus. (3) *The Tomb of the Mourning Women.* In this work, which probably belonged to the middle of the IV century B. C., and was singularly beautiful and restrained in feeling and execution, eighteen women were represented, between pillars, in various attitudes of grief. The whole was an artistic triumph, and had been well described as "a dirge in eighteen stanzas." From its similarity in style to the well-known sepulchral reliefs at Athens it might almost certainly be attributed to an Attic artist. It was possibly the tomb of Strato II, King of Sidon. (4) The so-called *Great Sarcophagus*, usually, though erroneously, connected with the name of Alexander. It was more probably the tomb of a king of Sidon, though scenes in the life of Alexander, and his figure, undoubtedly occurred on the monument. It was difficult to name anything quite comparable to this magnificent work of art, though perhaps the nearest analogy was presented by the Amazon Sarcophagus at Vienna. The vigor and variety of the battle and hunting scenes, and the richness of the color, which was not apparently a mere coat of paint, but actually worked into the texture of the marble, were unique. As to the style, there was not sufficient evidence to connect it with the school of Skopas, of Lysippos, or any other known artist, and it was better to wait for further light before pronouncing a definite opinion. On historical grounds, Prof. Gardner was inclined to believe that it might be the tomb of a king of Sidon, Abdalonymus, who is known to have been a friend and *protégé* of Alexander. Prof. Waldstein drew attention to the resemblance between the sarcophagus last mentioned and hunting scenes by Lysippos and Leochares of which descriptions have come down to us. He also compared the Sarcophagus of the Mourning Women with the reliefs of Apollo and the Muses found at Mantineia.—*Athenæum*, June 1, '95.

BOIOTIAN TERRACOTTA FIGURINES WITH GEOMETRIC DECORATION. —The Museum of the Louvre has recently acquired a terracotta idol said to have been found in the Boiotian necropolis. Two other analogous examples exist in the Museum of Berlin. Each of these figurines is in the shape of a bell, and rudely represents in two cases the human figure, and in one case the bell is surmounted by the head of a bird. Thus far the terracottas called *en galette*, the famous *pappades*

of the Greek peasant long passed as the most ancient specimen of Boiotian sculpture, but such figurines have been shown by Böhlau to be contemporary with Boiotian vases, of transitional style, which exhibit traces of Oriental decoration. The decoration upon the three figurines from the Louvre and Berlin show no trace of Oriental influence, and have no analogy with vases of the transitional type. Their decoration is composed of geometric elements and aquatic birds, and illustrate, therefore, an earlier period.—M. HOLLEAUX, *Mon. et Mem., Acad. Inscrip.*, T. I, p. 31.

A GREEK KRATER IN KORINTHIAN AND RHODIAN STYLE.—E. Pottier publishes in the *Mon. et Mem. Acad. Inscrip.*, T. I, p. 43, a Greek *krater* which came to the Louvre some thirty years ago with the Campana collection. This vase is the exact copy of a metallic model, as may be seen from the imitated rings or handles which are here affixed below the rim, but which in the original bronze were movable. In the execution of the decoration, which is painted in parallel bands, two processes are used. In the upper portion of the vase the decoration is Korinthian in character, exhibiting Oriental animals, such as the sphinx, the griffin and the lion, in which details are brought out by lines engraved with the burin. The lower portion of the vase is painted in Rhodian fashion without the assistance of the burin. The use of engraved lines in Greek pottery seems to have come in about the middle of the VII century, and to have had its origin in the imitation of incised metal vases, armor, *etc.* Korinth, renowned for its industry and metals, played a very important *rôle* in the introduction of this technical method. The great school of Attic painters who in the VI century carried this method to the highest point of perfection, men like Klitias, Nearchos, Amasis and Exekias, were in a way rather engravers than painters. At the end of the VI century a revolution in the art took place, with the introduction of red figured vases. The burin was now laid aside and the brush again expressed details of drapery, muscles, *etc.*

VASE PAINTING REPRESENTING AN ADVENTURE OF HERAKLES.—In the Museum of the Louvre there is a *skyphos* said to have been found in Lokris with crude paintings, which are nevertheless interesting because of their subject. On one side of the vase is represented Herakles and his companions arriving at the court of Eurytos, where they were kindly received and invited to a repast. Eurytos and his sons are seated at the banquet-table. The king's daughter Iole is not represented. On the other side we see a more warlike scene, in which Herakles and his companions are about to lay siege to the palace and are entering it by force. One of the figures may be Iole, although more likely an ephebe, clad in the same manner as the other figures.

In this scene the palace is represented as having a peristyle which is of interest, since architectural representations are rare during the V century. A Korinthian *krater* of the VI century, also in the Louvre, represents the visit of Herakles to Eurytos. The painting upon this vase is naïve but serious, whereas that upon the Attic *skyphos* is apparently satirical and influenced by the spirit of skepticism which was then in vogue.—E. POTTIER in *Mon. Grecs*, 21–22, p. 41.

RETURN OF HEPHAISTOS.—In the *Mitth. d. k. d. Arch. Inst. Athen*, 1894, pp. 510–525 (PL. VIII), G. Loeschke discusses a *Korinthian Vase with the Return of Hephaistos*. The vase is an amphoriskos in Athens. The date assigned is the early part of the VI century. Hephaistos is beardless, carries a drinking horn, and both his feet are crippled. He rides a horse. All the other male figures are bearded and nude. A draped female figure is explained as Thetis. The existence of a nude Dionysos at this date shows that Korinthian art was at that time less influenced than was that of Athens by the art of Ionia. Two grotesque forms with huge phalli, but no characteristics of horse or goat, are explained as genuine *Satyroi*, daemonic beings belonging to the belief of the early Achaian inhabitants of Peloponnesos. Etymologically σάτυρος is connected with the Latin *satur*.

AN ATTIC LOUTROPHOROS WITH FUNERARY SUBJECT.—The class of amphoras known as the Loutrophoroi exhibit two classes of subjects—funerary and nuptial scenes. The first class is found amongst black-figured vases or those where the red figures appear in the severe style. The second class is characteristic of a more advanced style. The unusual size of these vases, the fact that they have no bottom and finally the testimony of the monuments which show them placed upon the mound above the grave, go to show that they have a memorial character intended to designate the site of a tomb. In fact, some of them have been found in place in the ancient necropolis of Athens, near the Dipylon. In the catalogue of Attic Loutrophoroi made by Wolters (*Ath. Mitth.* XVI, pp. 378–384) the red-figured vases with funerary subjects are very few. An addition to this list is afforded by an important vase in the Louvre. On the neck are represented mourners, some of whom carry these vases. On the body of the vase is represented the *prothesis*, where the body of the departed is laid upon a couch and is surrounded by male and female mourners. This decoration is in the severe style of red figures, but below it there is a frieze of cavalrymen painted in black figures with incised detail. The technique of this transitional character is found upon signed vases of Khachrylion, Peithinos, Amasis II, Apollodoros and by the unknown master who writes upon his vases the formula Λάχης καλός. From the general style of the vase, it may be assigned to about the

year 480 B. C.—MAX COLLIGNON, in *Mon. et Mem. Acad. Inscr.*, T. I., p. 49.

RELIEF FROM THE PEIRAIEUS.—In 1880 the Louvre acquired a Græco-Roman basrelief discovered at Peiraieus, which represents Nemesis. Her two wings are closed, and she stands upon the back of a nude man upon the ground, holding in her right hand a wheel and accompanied by a serpent. The inscription is interesting because the goddess here mentions herself,

Εἰμὶ μὲν ὡς ἐσορᾶς Νέμεσις μερόπων ἀνθρώπων,
εὔπτερος, ἀθάνατα, κύκλον ἔχουσα πόλον.

M. Delamarre has called attention to the fact that this relief and the inscription contained Orphic reminiscences, which increase their interest. The sculptor of the monument was called Artemidoros.—*Rev. Arch.*, 1895, p. 95.

TWO GREEK RELIEFS IN THE BRITISH MUSEUM.—Amongst the recent acquisitions of the British Museum are two Greek tombstone reliefs. The earlier is that of Glykylla, said to have been found at Thebes, but evidently of Attic origin. The material is Pentelic marble and the subject a seated lady putting a bracelet about her wrist, while an attendant stands holding open a jewel-casket. The character of the sculpture, as well as the inscription, indicate the period of the work to be the close of the V century. The second relief is the most perfect representation of its kind. On it is represented a young mother seated, before whom is standing an attendant holding the child arrayed in swaddling clothes. This relief is also of Pentelic marble and obviously of Attic workmanship, dating shortly after 400 B. C.—A. H. SMITH, in *Jour. of Hell. Stud.*, Vol. XIV, part 2, 1894.

STATUETTE OF APOLLO.—Amongst the bronze statuettes which formerly belonged to the collection of Viscount H. de Janzé, now preserved in the *Cabinet des Médailles* of the Bibliothèque Nationale, Paris, there is one which in spite of its interest seems not to have been sufficiently noticed. It represents a nude, beardless, long-haired youth extending his right hand. The work is certainly Greek, and may be placed at the end of the V century. It is doubtless a replica of more ancient work of cruder character. In comparing this statuette with the Piombino Apollo, we find many points of resemblance. One reason why certain authors have refused the name of Apollo to the statue from Piombino is the absence of locks falling over the shoulder. Such locks occur in the present statuette. It may, therefore, be considered as inspired by the celebrated Apollo Philesios of Kanachos.—J. ADRIEN BLANCHET, *Rev. Arch.*, 1895, p. 28.

VENUS PUDICA.—In 1893 the Museum of the Louvre acquired a bronze statuette said to have come from Sidon. It belongs to the

series represented by the Venus de Medici and the Venus of the Capitol. In 1873 Bernoulli catalogued ninety-nine replicas of this type, and the list can be certainly much enlarged to-day. The type represented by the Venus of the Vatican and that of Munich was less frequently reproduced, although more closely corresponding to the Aphrodite of Knidos, by Praxiteles. The type represented by the Venus de Medici would seem to be not a mere variant of the Aphrodite of Knidos, but an earlier type established before the days of Praxiteles.—PAUL JAMOT, *Mon. et Mem. Acad. Inscr.*, T. I, p. 151.

FEMALE HEAD IN THE MUSEUM OF THE LOUVRE.—M. George Perrot publishes in the *Mon. et Mem. Acad. Inscr.*, T. I, p. 129, a female head acquired by the Louvre in 1893. It is of Italian marble and of a style which combines influences which may be referred to Skopas and Praxiteles.

ARGIVE BRONZE STAUETTE IN THE LOUVRE.—In 1894 the Museum of the Louvre acquired a fine bronze statuette purchased in Athens from a private collection, and said to have been found at Olympia. It represents an athlete, who wears boots of the kind called by the Greeks ἐνδρομίδες. According to Hesychius and Pollux, this kind of boot was worn by athletes. The left arm is missing, but strangely enough the place of attachment is covered by the ancient patina. In speaking of the patina of the bronzes of Dodona, M. Heuzey recalled some years ago the curious text of Plutarch concerning the wash which Greek bronzes received in antiquity. M. Henri Lechat in the *Bull. de Corr. Hell.*, 1891, p. 471, renewed the study of this passage and proved the existence upon Greek bronzes of the V and IV centuries of an artificial patina applied by the Greek bronze makers to preserve their works from the effect of air and humidity. The statuette of the Louvre substantiates this theory. In style the bronze may be classed as a work of the school of Argos, intermediate between the styles of Ageladas and Polykleitos.—A. H. DE VILLEFOSSE, in *Mon. et Mem. Acad. Inscr.*, T. I, p. 105.

HEAD OF APOLLO.—The Museum of the Louvre has recently acquired a head of a statue which belongs to the series represented by the Choiseul-Gouffier Apollo of the British Museum and the Apollo on the Omphalos at Athens. The Museum of the Capitol and the Torlonia collection in Rome and the Uffizi in Florence also contain statues belonging to this series. There are also fourteen separate heads known besides the one here published. It is evident, therefore, that the original represented by these replicas, must have been very popular in antiquity. The original was lost, but the Apollo on the Omphalos is probably the closest copy. The question whether these statues represent an Apollo or, as Dr. Walsdtein thought in the

case of the London statue, an athlete, may be considered settled since the publication by Overbeck of his Apollo Atlas. Though considerably injured by weathering, the Louvre example is important, since it is the only one of all this series which has the nose complete.—A. H. DE VILLEFOSSE, in *Mon. et. Mem. Acad. Inscr.*, T. I, p. 61.

APHRODITE OF MELOS.—Koerte considers that the problem of the Aphrodite of Melos has been definitely settled by Furtwaengler, and believes that we may now without hesitation attribute this statue to the end of the II century. Other critics of the *Meisterwerke* have thought the same. They are wrong. Furtwaengler has based his argument on the testimony of Voutier, the first weak point in his thesis. The second is that the restoration which he has imagined, and of which a cut is found in the English edition of the *Meisterwerke* (p. 380), is simply villainous. The question is not settled at all, and I am convinced that the horrible hand with the apple never belonged to the statue.

M. Mironoff has pretended that the Aphrodite was a Winged Victory. Petersen has replied to him, that there is here not the slightest trace of a wing, and that the same is the case with the Venus of Capua. —S. REINACH, *Rev. Arch.*, 1895, p. 107.

AN ARCHAIC BASRELIEF FROM KERTCH.—M. Reinach discusses the question whether a basrelief in archaic Greek style at Kertch, in the Crimea, is archaic or archaistic. He begins by showing that we have almost nothing remaining of Ionic sculpture between 480–450 B. C., and in this connection shows the importance of the city of Panticapaea, the modern Kertch, which was founded as a colony of Miletos at least as early as 540 B. C., and was the mother of all the maritime cities of the Bosphorus. Its extraordinary artistic development in the V century is attested by the collections of objects found in its tombs now in the museums of Russia.

On this basrelief are four figures: Artemis, Apollo Daphnephoros, Hermes, and finally a figure which is probably that of Peitho. The style is that of the Attic-Ionic reliefs of the close of the VI or beginning of the V century. Of the two authorities who have seen it, one, Professor Kondakoff, regards it as archaic; the other, Professor Furtwaengler, regards it as archaistic. The latter opinion is followed by Hauser in his *Neuattischen reliefs*. The arguments used to show archaistic character of the relief are mainly connected with certain details, which are asserted not to be found in early works. M. Reinach takes up these points one by one and shows the argument in each case to be unfounded. Such, for example, is the presence of wings fastened directly to the heels of Hermes. All of these characters, the slenderness of his waist and the development of his hips, the trans-

parent treatment of parts of the drapery and their swallow-tail termination, he proves to have existed in the monuments of the V century B. C. His conclusion is that this relief is an Attic-Ionic work sculptured in about 470 B. C. under the influence of the Athenian models which were popular with the contemporaries of Kimon.—*Mon. et Mem. Acad. Inscr.*, 1895, T. II, pp. 57–76.

BRONZE MIRROR RELIEF AND MARBLE DISC REPRESENTING APHRODITE PANDEMOS.—The statue of Aphrodite Pandemos, by Skopas, seen by Pausanias at Olympia, has been illustrated by a coin of the time of Septimius Severus, in accordance with which M. Boehm and M. Reinach have catalogued the representations of Aphrodite Pandemos. Both of these catalogues mention the bronze relief from a mirror box in the Louvre which came from the collection of Count Tyszkiewicz, though now published for the first time. The subject recalls the characteristic traits of the group of Skopas, with slight variations made for decorative reasons. The two kids which appear upon the mirror, on either side of the ram, may well have appeared in the original group and have been utilized as artificial supports. The Louvre also contains a marble disc of crude workmanship, which perpetuates the same subject and resembles the coins of Elis even more closely. Here also the two kids appear; in the upper portion is a vase in the form of a *kylix*. This marble disc came from Athens, and together with two other reliefs from the same source, seems to indicate that at Athens, as well as at Elis, the ram was the attribute of Pandemos, and that the statue seen there by Pausanias was of the same general type as the statue by Skopas.—*Mon. et Mem. Acad. Inscr.*, T. I., p. 143.

FRAGMENTS OF TWO RED-FIGURED CUPS REPRESENTING THE ILIUPERSIS.—In the archæological collection of the University of Vienna are two fragments of a cup, and in the possession of P. Hartwig three fragments of another containing representations of the Iliupersis. One of the University fragments represents Kassandra with her right hand defending herself from Ajax; her left hand, according to analogy of other representations, was stretched toward the Palladion. Three letters, ΛΕΑ, point to the inscription ΛΕΑΛΡΟΣ ΚΑΛΟΣ. The other fragment represents Astyanax overturned by Neoptolemos. A female figure, Andromache (?) or Hekuba (?), raises her hand in astonishment. The fragment is inscribed ΚΑΛΟΣ.

The style of the painting enables us to attribute the cup to the circle influenced by Epiktetos, though we may not go so far as to ascribe it to Khachrylion, who made use of the same inscription. It enables us to see the mode of composition afterwards elaborated by Euphronios.

The three other fragments show the arm and helmet of Neoptolemos, the head and part of the arm of Priam, an architrave with triglyphs and part of a stone altar. Style and execution point to the hand of Brygos. The same episode with reversed and modified composition appears in the fragments of a cup in the *Cabinet des Médailles* in Paris.—P. HARTWIG, in *Arch.-Epigraph. Mittheilungen aus Oesterreich-Ungarn*, Heft 2, 1893.

COINS OF THE ACHAIAN LEAGUE.—Mr. Bernard Quaritch will shortly publish a catalogue of all the coins, both silver and copper, struck by the Achaian League, compiled by Major-General M. G. Clerk. It will be illustrated by thirteen copper plates of 311 coins, and one plate of monograms, 130 in number. The catalogue will contain detailed descriptions of 323 silver and 120 copper coins of the League, marking 238 coins mentioned in the catalogue of Prof. R. Weil, of Berlin. There will also be the following tables: (1) List of the towns of the League of which coins are not known; (2) list of symbols found on the League coins, showing towns to which they are attributed; (3) list of proper names, showing the towns on coins of which they are found.—*Academy*, May 4, 1895.

ARCHÆOLOGICAL SOCIETY IN BERLIN.—At the November meeting Pomtow spoke of the *Results of the Excavations at Delphi from April to June*, 1894. Remarks were made by Kalkmann and Puchstein. Winnefeld spoke on the *Results of this Year's Excavations at Hissarlik*. Belger spoke on *The Age and Origin of the Twisted Column* (2 cuts). At the December meeting (Winckelmannsfest) Curtius spoke of *Olympia in Hellenistic Times*. Trendelenburg called attention to an *Attic Relief in Copenhagen*. Koepp spoke of *Battle-pictures in Athens*. Treu spoke of a *Plastic Reproduction of the Sculptures Excavated at Olympia*. Full reports of these meetings are given in the *Archæologischer Anzeiger* (1895, pp. 2–27) and *Berlin philol. Wochenschr.* (1895, Nos. 5, 6, 7, 8, 13, 14. No. 6 contains a plan of Delphi).

RECENT DISCOVERIES.—In the *Mitth. d. k. d. Arch. Inst. Athen*, 1894, pp. 529–536, W. Doerpfeld gives a list of *Discoveries*. The only discoveries of importance not elsewhere mentioned in the JOURNAL are some Mycenæan houses and some vases found at Aigina in excavating the temple of Aphrodite, remains of a building with mosaic floors and indications of a hypocaust near Chalkis, and twenty prehistoric graves at Amorgos in which were found objects similar to those previously discovered in similar graves on the Cyclades.

DEATH OF PROF. HIRSCHFELD.—The well-known archæologist, Gustav Hirschfeld, died at Wiesbaden on Saturday, the 20th ult. He was born in Pomerania in 1847, and after traveling in Italy, Greece and Asia Minor, superintended the Prussian excavations at Olympia

from 1875 to 1877. In 1878 he became extraordinary professor at Königsberg, and an ordinary professor in 1880. He wrote a number of archæological monographs, beginning with "Tituli Statuarum Sculptorumque Græcorum" in 1871, and he had a share in the first two volumes of the "Ausgrabungen in Olympia." He became an authority especially on the inscriptions, geography and antiquities of Asia Minor, including the so-called "Hittite" remains, and published two monographs on this subject besides a number of reports. Some years ago he founded at Königsberg a review entitled *Königsberger Studien.*

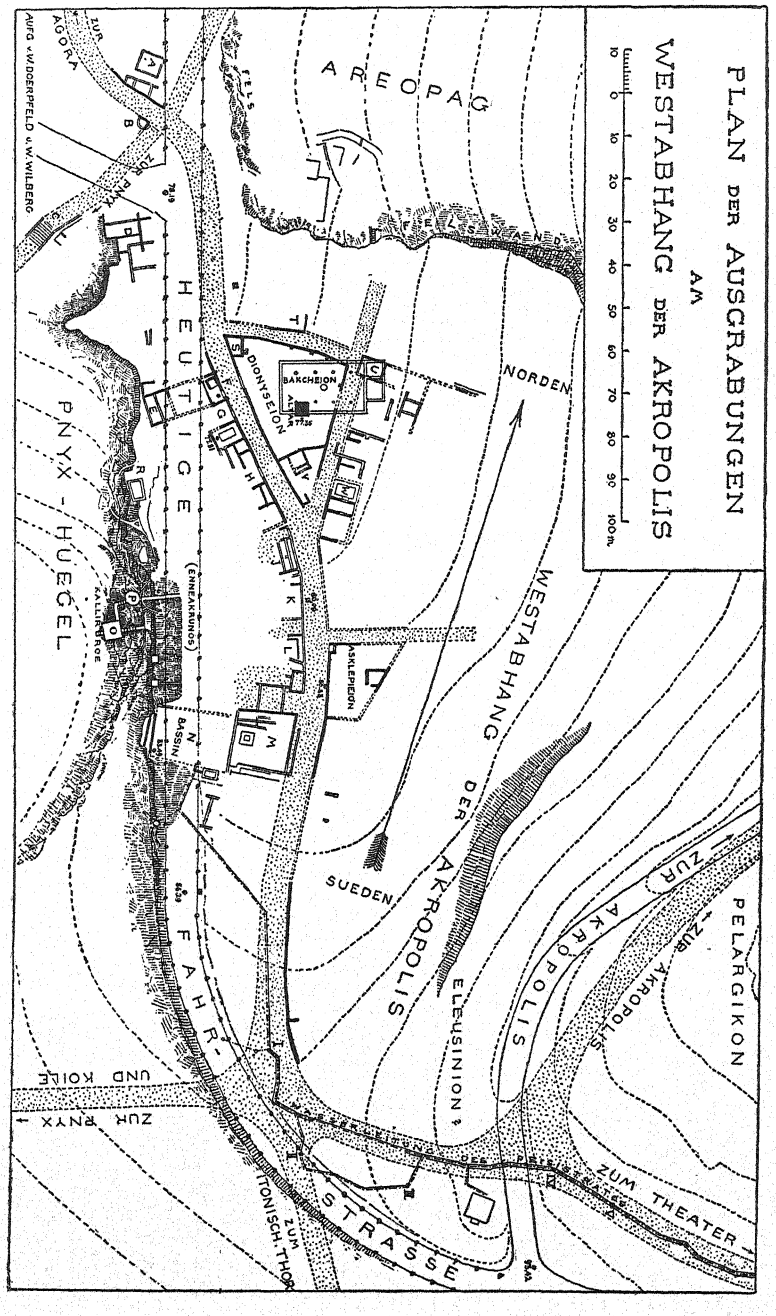
AMORGOS.—The announcement is made that Tsountas has excavated some twenty prehistoric tombs which contain plates of bronze, terracottas and a small statue in marble. The vases are like those of Thera, the handles of which are pierced so that the vase may be suspended with cords. At Minoa there has been discovered a decree of the Samian Commune in honor of the physician Ouliades.—*Rev. Arch.*, 1895, p. 107.

ARGOS.—THE HERAION.—We quote from the New York *Nation* the following letter by Prof. Charles Waldstein, dated Argos, March 28:

"As I write, I sit on the walls of the second temple of Hera (of the V century B. C.), while the men are massed on the slope below, to the south, where last year we found the first indications of a large building between twenty and thirty feet beneath the foundation walls of the second temple. As we wished to lose no time this year, Mr. J. C. Hoppin (Harvard, 1893), together with our architect, Mr. E. L. Tilton, of New York city, and Mr. T. W. Heermance (Yale, 1893), began excavating a week ago, and carried on the work very successfully before my arrival here. The building below the south slope of the second temple promises to be one of the finest of the eleven buildings we have already discovered on this most favorable site. Of the north wall, which is of the best Greek masonry, four courses are standing. We have already followed it up for more than a hundred feet, and have not yet come to the end. The pillar bases in the centre are all *in situ.* On one of these last year a drum of the column was still standing, and we have since discovered two others. Here Mr. Hoppin found some well-preserved large fragments of the metopes from the second temple, together with two heads in excellent preservation, one of which (a warrior with a helmet) fits the neck of a fragment of a metope with the greater part of the torso. If our good fortune continues, we shall be able to present fine specimens of metopes of this temple, which is second only to the Parthenon in artistic importance. The grant of the Archæological Institute and (above all) the liberality

of Mrs. J. W. Clark, of Pomfret, Conn., enable us to carry this season's work to a termination without the worries of cramped means."

ATHENS.—EXCAVATIONS ON WESTERN SLOPE OF THE AKROPOLIS.—In the *Mitth. Arch. Inst. Athen*, 1894, pp. 496–509 (pl. XIV), W. Doerpfeld writes of *The Excavations on the Western Slope of the Akropolis.* I. *General View.* A brief statement of the questions to be settled by the excavations is followed by a concise history of the excavations and description of the buildings, *etc.*, discovered. On the plan the modern road is represented by parallel lines and circles denoting trees. The ancient roads are dotted. A is a building of uncertain size and purpose, probably of Hellenic date. The corner of the Areiopagos, near this part of the road, shows many cuttings for buildings, one of which may be the last signs of the Odeion mentioned by Pausanias near the temple of Ares and the old Orchestra. Of the building B, also west from the Areiopagos, remains of two polygonal walls forming a corner were found. From this point a path leads up to the Pnyx. Steps in this path are marked C. The remains marked D probably belong to a dwelling. E is a *lesche* of the IV century, built in part at least over a *hieron* of the VI century. This—a rectangular *exedra* containing a small temple and an altar—is marked F. G is a private house with two mortgage-inscriptions of the IV century. H, a Greek building about 31 m. in length, may be a private house or a public edifice. At J, K, L are remains of a late Roman house, not completely given in the plan. Under this was a smaller earlier house. Between this house and the Pnyx hill was an open space on which was the *Enneakrunos* (see JOURNAL, Vol. IX, p. 292). The ancient building with its nine water-openings stood about where the word *Enneakrunos* is marked in the plan, under the present road. O and P were basins or small reservoirs. N was a large basin. M was a Roman house. The ancient water-pipes and excavated aqueduct have been followed from N to the theatre of Dionysos (I, II, III, IV, V). Of the ruins marked T only small bits of early limestone walls remain. In the triangular space between these roads, south of the Areiopagus, was a sanctuary of Dionysos, the Lenaion. It was surrounded by a polygonal wall. At S was an ancient wine-press, over which a later one was built. At V was a small temple. In the middle of the triangle was an altar. These early buildings are printed in full black lines to distinguish them from the later Bakcheion or meeting-place of the Iobakchi (see JOURNAL, Vol. IX, p. 291). Across the road, east of the Dionyseion are remains of a Greek house with mosaics, probably the oldest existing Greek mosaics. Further south is the Asklepieion discovered two years ago (see JOURNAL, Vol. IX, p. 115).


PLAN DER AUSGRABUNGEN
AM
WESTABHANG DER AKROPOLIS
AUFG. v. WOLTERSDORFF u. W. WILBERG
AGORA
AREOPAG
HEUTIGE
PNYX-HUEGEL
DIONYSEION
BAKCHEION
NORDEN
SUEDEN
WESTABHANG DER AKROPOLIS
ASKLEPIEION
ENNEAKRUNOS
N BASSIN
FAHR-STRASSE
ZUR PNYX UND KOILE
ZUM DIONYSISCH. THOR
ELEUSINION
ZUR AKROPOLIS
PELARGIKON
ZUM THEATER

ARCHAIC STATUETTES OF ATHENA.—In the *Mitth. d. k. d. Arch. Inst., Athen*, 1894, pp. 491–495, P. Kastriotes writes of *The Votive Offerings to Athena in the Museum of the Akropolis.* Comparison with terracotta statuettes, some of which are clearly characterized as Athena, the consideration that in the sixth century the type of Athena was not fixed, the small number of archaic statues clearly characterized as Athena, and the large number of female figures without distinct attitudes all make it probable that the archaic female figure in the Akropolis museum (called by many "priestesses" or "maidens") really represent Athena.

ENCLOSING THE BURIAL GROUND.—The Archæological Society has determined to surround with iron railings the ancient burial ground on the Kerameikos and the Theatre of Dionysos. After the inspector's plan of transferring the most beautiful and important reliefs to the Central Museum had been rejected, the enclosure of the ancient cemetery was undertaken, and will be proceeded with along with the theatre.—*Athenæum*, June 29, 1895.

DELPHI.—From Delphi is announced the discovery of a colossal statue of Athena in *poros lithos*, with traces of polychrome coloring, but unfortunately the head is wanting. Some important fragments of an archaic group in marble, representing a lion tearing to pieces a bull, have also come to light, as well as the fine reliefs which adorned the front of the *scena* in the ancient theatre. So far there have been recovered the representation of Herakles shooting arrows against the Stymphalian birds, the contest of Herakles with Antaios and that with the sea monster for the deliverance of Hesione, and a portion of the Kentauromachia.—*Athenæum*, June 29, 1895.

A SECOND HYMN.—Dr. Homolle reports the discovery of a second hymn to Apollo, also accompanied with music marks, consisting of twenty-eight lines, and almost throughout capable of being read. Prof. Henri Weil, of Paris, has examined the find closely and restored the fragmentary readings. The hymn is pronounced to be of rare poetic worth, and was found on a marble tablet 0.80 m. high by 0.61 m. wide. It commemorates the coming of the god to Delphi, and his victory over the dragon, and closes with a petition for Greece and the Romans. Besides the hymn there were found also marble fragments with music marks containing the famous war song of the Greeks, the Pæan. But, unfortunately, the fragments are in such a condition that a large portion of the hymn can no longer be made out. Professors Reinach and Weil are at work deciphering these fragments and trying to restore and reconstruct the hymn.—*N. Y. Independent*, June 6.

ELEUSIS.—In the course of the excavations instituted anew at Eleusis by the Archæological Society, under the superintendence of the Inspector, A. Skias, a *pinax* of terracotta of much importance was discovered. It is a work of art of the IV century, from the hand of a master. On it are painted four female figures, and the colors are wonderfully preserved. On the base of this votive *pinax* is inscribed Μύνιον ἀνέθηκεν. The discovery is not only interesting in an artistic point of view, but also because the pictures have obvious relation to the mysteries, and it is hoped that their correct interpretation will afford fresh knowledge of the Eleusinian mysteries.—*Athenæum*, June 1, 1895.

Dr. Skias also reports the find of a red-figured vase of the IV century, 0.22 m. high, of altogether unusual and peculiar shape. Upon it the Eleusinian goddess Demeter is represented. She holds the customary ears of corn in her hand. Near her is Kore. Between them is Triptolemos riding in a wain drawn by winged dragons. Upon the other side of the vase is depicted a scene that has not as yet been sufficiently explained, but in all probability it is connected with the Eleusinian mysteries. Some traces of gold on the vase show that in antiquity these representations were gilded. On the basis is the inscription Δημητρία Δήμητρι ἀνέθηκεν; it also was at one time gilded. The vase was not found intact, and the fragments were sent to the Central Museum at Athens to be put together.—*Athenæum*. June 29, 1895.

ERETRIA.—EXCAVATION OF THE THEATRE AND GYMNASIUM BY THE AMERICAN SCHOOL.—Prof. Rufus B. Richardson, Director of the American School at Athens, writes to the *Independent:* "The topography of Eretria, in spite of the lack of a description by an ancient writer, is slowly becoming fixed. Last year the American School at Athens had the good fortune to lay bare the foundations of a temple of Dionysos near the theatre. While that work was going on I noticed, one day, the corner of a hewn stone projecting from the ground, about 150 yards from the theatre and at the foot of the Akropolis. On moving a considerable quantity of earth I found a line of four carefully wrought stone tubs, running back into the slope of the Akropolis and once supplied with water by a tile pipe at their upper end. I was sorry at the time not to be able to clear away here a considerable space; and when, this year, a friend put into my hands the means for conducting another excavation campaign, I immediately thought of the realization of this old desire.

"But Dr. Doerpfeld, the Director of the German School, had on his recent island tour pointed out the duty of the American School to complete the excavation in the Eretrian theatre by clearing out the

half of the orchestra hitherto untouched, as well as the parodoi and the seats. The two theatres excavated by our school which he visits on his tours, Thorikos and Eretria, were both cases of unfinished work in contrast to the theatre at Megalopolis, so faultlessly executed by the British School. So, although the earth lay solid and hard about five feet deep over one-half of the orchestra, and although there was very little hope of 'finds' there, our duty to the archæological public seemed to call more loudly than the uncertain hope of discovering something new in the region of the tubs.

"Giving heed to this voice, I made clearing of the theatre the principal thing from the beginning to the end of our four weeks of excavation; and we are now able to present to our colleagues a finished work in which they may find pleasure as well as profit.

"On the second day, having more men than could easily be employed in the theatre, I drew off the surplus, and before night had nearly cleared about the tubs a large room with a floor of pebbles laid in cement, so hard as to seem, when we first struck it, a stone floor. And in the doorway of this room we had found a breast of a human figure with drapery, a large fragment of an inscribed block of marble, and a fine marble anthemion from the roof.

"After this very promising beginning we went on for four days without finding anything of importance, but laying bare room after room of a large building. But at the end of the fourth day we found a really interesting inscription intact, on a block of marble serving as the base of a statue of a youth who had won a gymnastic victory, and a vase fragment with a name painted on it. On the morning of the fifth day came our principal find. This was a bearded head of Dionysos, of an archaic type, but probably archaistic work resembling closely a head in the Athens Museum, but surpassing it in beauty of workmanship. Luckily this head is split in such a way as to give us practically the whole face. A little of the flowing beard only is chipped off on one side. A head which we found later was, on the contrary, so split as to give us only some elegant back hair and the ears of a youth, while still another piece, particularly tantalizing because it showed the best art of all our discoveries, consisted only of the back part of the head with the forehead and right eye of a woman.

"A particularly interesting find was the upper two-thirds of a massive head of a man, with a very high forehead inclining to baldness. One morning, after this had lain in our tents for more than a week, Mr. Lyris, the ephor attendant on the excavations, who was lodged in the museum of Eretria, said that he thought he had seen in the museum the lower part of a head which would match our upper part. We took our part down to the museum and placed it upon the piece

indicated, and the union was perfect. The head, reunited after, perhaps, centuries of separation, now adorns the museum at Athens, where all the good things come, with the exception of Olympia sculptures. In one way the matching of the parts of the head brought a surprise. The massive brow surmounted a face so narrow at the mouth and chin that the effect would have been almost ridiculous, were it not impossible for such forehead and eyes to be made a part of anything ridiculous; they dominate the combination, and convey the idea of a strong personality. It is one of the best portrait heads in the museum.

"As we went on laying bare room after room, large and small, we at last had the plan of a large building, roughly speaking 150 feet square, with a large open court in the middle, ending on its lower side toward the city in a terrace wall eight or ten feet high. On the side toward the Akropolis it ran up against a high terrace wall, from the top of which other buildings started off on a still higher level. So the accumulation of earth, tiles and stones over our building varied from about one foot on the lower side to seven or eight feet on the upper side.

"From the liberal arrangements for water—we found also a row of smaller tubs, probably foot-bath tubs, and three different arrangements for delivering the water, evidently belonging to three different epochs—we had early come to the conclusion that we were in a gymnasium. But in this case we were not, as last year in the case of the temple, left to conjecture, however probable. We found inscriptions which put the identification beyond doubt.

"One Saturday evening at five o'clock I noticed that a supposed stone step left by the workmen as it lay, and subsequently covered in a heavy rainstorm with a coating of mud, which had turned hard in the hot sun, had a little moulding on its edge. Picking away the hard earth with a knife, I soon saw that the stone ended in a sort of gable. A workman being called, put his pick under it and raised it, when on its underside appeared an inscription of forty-nine lines, with a heading consisting of a name carved within a wreath. The earth lying below the stone had so taken the impression of the inscription that for a whole day one could read it almost as easily from the earth as from the stone.

"In this inscription Eretria records an honor to one of her liberal citizens, Elpinikos, the son of Nikomachos, a gymnasiarch, who had furnished money from his own resources for prizes in various contests, and had taken pains that oil of the very best quality should be served for anointing the gymnasts. After a long preamble, recounting these and many other services, it is enacted, 'to the end that all may know

that the State is not ungrateful, and that the public may have many emulators of his example,' that 'Elpinikos receive a crown of olive, and that the decree be cut on a marble *stele*, which shall be set up in the gymnasium in the most conspicuous place.' We doubtless found it fallen near where it stood.

"Of a similar decree in honor of another gymnasiarch, Mantidoros, the son of Kallikrates, we found the top part with fourteen lines and a heading like that of the other. The language also follows the other very closely. Mantidoros, like Elpinikos, 'abode a whole year in the gymnasium,' and, like him, furnished money from his own resources, and 'looked out for oil of the most excellent quality.' But whereas Elpinikos furnished at his own charges a teacher of eloquence and a drill sergeant (*ῥήτορα καὶ ὁπλομάχον*), Mantidoros furnished a Homeric philologist (*Ὁμηρικὸν φιλόλογον*), Dionysios, the son of Philotas, an Athenian, 'who devoted himself to the boys and to the youths and to all others who had any bent toward education.' It is interesting to have the name of a Homeric scholar of that period. But the chief importance of the two inscriptions was that they identify the building certainly enough as a gymnasium.

"As the inscriptions, and, in fact, most of the finds, do not go back of 150 B. C., and as several theatre seats and architectural members of the stage building are found in the gymnasium, we probably have the latter building in the shape given to it under Roman dominion, after a previous destruction by fire, of which traces remain.

"Not to give a catalogue of all our finds, I may mention, in addition to numerous copper coins, two silver pieces. One of these is a didrachma with an archaic head, probably of Herakles, and on the reverse side a trireme on the water, dating back, probably, to a time before the Persian War, and so to the days of Eretria's thalassocratia. The second piece is a tetradrachma of Lysimachos."—*N. Y. Independent*, July 18.

KEPHALLENIA.—TOMBS.—In the *Mitth. Arch. Inst. Athen.* (1894, pp. 486–490, cut), P. Wolters describes *Mycenæan Graves in Kephallenia*. One was a bee-hive tomb, now so destroyed as to be hardly recognizable. Besides this, three rock-cut chamber-tombs are described. All are near together, not far from the village of Masarakáta.

LYKOSOURA.—The excavations at Lykosoura have been resumed under the superintendence of the inspector, Basilius Leonardus. When we remember that we owe to this site the beautiful sculptures by Damophon of Messena belonging to the Temple of Despoina, most of which adorn the Patissia Museum at Athens, we may look with much eagerness for the results of the new explorations.—*Athenæum*, June 29, 1895.

MYKENAI.—Dr. Tsoundas has resumed his excavations at Mykenai, both inside the Akropolis and in the necropolis outside the walls. In the latter ten prehistoric tombs have recently been discovered and examined, in which were found five bronze swords, several fibulæ, a ring and several other gold ornaments, besides incised precious stones. —*Athenæum*, June 29, 1895.

OLYMPIA.—PEDIMENTAL SCULPTURES.—In the *Jahrbuch d. k. d. Arch. Inst.* (1895, pp. 1–35), G. Treu discusses *The Technical Execution and Painting of the Pediment-groups of the Temple of Zeus at Olympia* (2 cuts). Careful examination of details gives the following results: The blocks were nearly rectangular when taken from the quarry. Pointed and toothed chisels as well as drills were used. Numerous parts of figures were made of separate pieces, because the marble blocks were not large enough to furnish the entire figure. In many instances the original design was changed in the execution. Evidently no full sized models were made, and the pediment groups were apparently executed from small sketches in relief. The groups were not made with reference to the high position they were to occupy, but with reference to a spectator standing on a level with the statue about opposite the centre of the composition. The figures were finished before being hoisted into the pediments. Some were broken in being placed in position, and others had to be altered to fit in their places. The figures were attached to the tympanum with bolts and clamps, and hook-shaped clamps fastened them down to the slabs laid upon the cornice to receive them. The nude parts of human bodies were light in color, perhaps of different shades. The prevailing color of garments was red, though other colors were used, especially in borders, *etc.* The hair was about red, shaded with dark lines, yellow, white, and darker colors. The horses and horse-bodies of centaurs were for the most part red. Numerous details were given prominence by light coloring and gilding. The tympanum was doubtless blue. In all, more than three-fourths of the surfaces (including cornices, *etc.*) were covered with coloring. The coloring aimed at was broad decorative effect.

PHALERON.—Not far from Cape Colias, in Attica, a most important discovery has lately been made. During the construction of a restaurant on the Phaleric coast, Dr. Wiegand, of the German Archæological Institute, remarked a wall built up with lime, which was found barely covered by the soil, and guided by this relic he came on the foundations of a whole building. Some arches and circular rooms indicated that it was a Roman bath, which was undoubtedly attached to a villa of the Roman period. But in the inner divisions the floor and coloring are of Greek times. The coloring consists of mortar, of

which a thin and beautiful fragment remains; the colors are well preserved in some portions of the upper coating. But the pavement consists of well-compressed clay.

This structure was in any case a private residence. On the south side stood a hall, and of the pillars encircling it some fragments remain. These columns consisted of bricks of burnt earth, in wedge shape, each of which was provided with three holes. These brick columns were covered with cement and are fluted in imitation of marble columns. Not far from this ruin a whole row of foundations of rooms belonging to another ancient building were discovered. In the Middle Ages, or at least under Turkish rule, a tower or watch station was built in a portion of the Romano-Greek villa. Only the foundations of this tower have been discovered.

In the same excavations a beautiful Attic tomb relief was unearthed. On it is represented a lady who sits on a stool; before her steps a maid holding a casket, out of which the lady is seeking to take something. This relief belongs to the type already represented by several specimens at Athens.—*Hestia*, May 18, and *Athenæum*, June 29, 1895.

SPARTA.—From Sparta is reported the discovery of an early relief, perhaps archaic, representing two figures of men, probably the Dioskouroi, and between them two amphoræ.—*Athenæum*, June 29, 1895.

TURKEY.

CONSTANTINOPLE.—THE COLUMN OF ARCADIUS.—M. Geffroy publishes an inedited drawing of the column of Arcadius, erected in Constantinople and now destroyed. The Byzantine historians and mediæval travelers speak of the existence at Constantinople of two columns decorated with spiral reliefs erected on the model of that of Trajan at Rome. One was erected in 386 by the Emperor Theodosius the Great in the seventh region on the third hill called Tauros; the other by his son Arcadius in 403 in the twelfth region on the seventh hill called Xerolophos. The column of Theodosius fell to the ground at the beginning of the XVI century; that of Arcadius remained until about 1720, when it was destroyed by the Turkish government, as it threatened to fall. Of the column of Theodosius we have a probable drawing of part of its sculptures from an original supposed to have been executed by Gentile Bellini under Mahomet II. Two copies of this exist in France: one at the Louvre, the other at the Beaux-Arts. The identification is, however, only probable, and great confusion has always existed between the two columns.

The first accurate description of the column of Arcadius was executed in the middle of the XVI century by a French traveler, Pierre Gilles († 1555). He wrote two well-known books on Constantinople,

in the second of which there is a chapter on the seventh hill and the column, which he describes very carefully, as far as he could study it from the interior. The fanaticism of the Turks prevented his examining or drawing the sculptures on the outside. In 1610 an Englishman named Sandys gives in his Book of Travels an engraving of the column with its pedestal. A couple of years ago Professor Michaelis identified a drawing of Melchior Lorich, the famous Dutch engraver of the XVI century, as a representation of the two upper spiral reliefs of the column. This drawing is dated 1559. The artist was attached to the person of Busbecq, the ambassador of Ferdinand I at Constantinople. Both ambassador and artist were fond of antiquities, and under this powerful protection Lorich was able to draw up a vast plan of Constantinople and to make a complete drawing of the reliefs on the column, of which the one just mentioned has alone been identified.

The drawing now published by Geffroy is part of the famous Gaignières collection of drawings now in the National Library in Paris, under the number 6514. It is apparently a water-color drawing of the XVII century, to judge by the quality of the paper and the inscription.

This drawing agrees exactly with the description of Gilles, with the Sandys engraving, and the drawing of Lorich. Seen from this point of view, the column is divided by narrow bands into thirteen rows of spiral reliefs and rests upon a basement with four bands of reliefs, which repose in turn upon two projecting plinths. The date of the drawing is more or less determined by the evident condition of decay and ruin of the column at that time. The accounts of travelers show that in 1547 the column was still in excellent condition; that in 1610 there were a few fissures; that in 1650 and 1665 the condition of the column was not yet thought very bad. The reports of Thomas Smith in 1672, and of Tavernier in 1675, show that the basreliefs were then very badly damaged, the heads broken, and that bushes grew around the pedestal. In 1680 it appears that the pedestal was used to support a lot of shanties. Reports printed or dated in 1685 and 1686 speak of the column as likely to fall, and about this time it was that the Turkish government sought to strengthen it by the iron circles which are shown in the drawings. Now, Gaignières began to form his collection in 1680 and completed it in 1711. Toward this first date the French showed great interest in Constantinople, in view of the aggressive policy of Louis XIV, and the ambassador, M. De Nointel, who went to Constantinople in 1670, threw himself ardently into the king's projects, at the same time employing a number of artists to reproduce the monuments throughout the Turkish empire. One of the fruits of this enterprise was Carrey's famous drawing of

the Parthenon. It was then also that both Carrey and Grelot made a series of drawings from the monuments of Constantinople. To such a series, undertaken for the ambassador, the drawing now published must belong.

M. Geffroy finds it extremely difficult to interpret the sculptures on the basement and the spirals of the column. The subjects on the pedestal seem to be of two kinds: one that of a triumph and the other that inspired by a religious theme, as is shown by the Constantinian monogram. In studying the question of the campaigns of Theodosius and Arcadius, with a view of determining the subjects of the spiral reliefs, M. Geffroy calls attention to the campaign undertaken by the father and son together in 386 against the Gruthungi on the Danube. This tribe belonged to the eastern Goths, who were pushed forward by the invasion of Huns, and who in seeking to violently pass the Danube into the Roman territory were met and defeated. There would, therefore, be great correspondence between certain events on the columns of the two emperors relating to their common victories. M. Geffroy is unable, however, to identify any special episodes. He closes his article by a reference to a certain enigmatical drawing of a spiral column published by Ducange in 1680, which can be related to either of the two columns mentioned. This drawing, taken with a number of texts, would seem to show that there may have existed in Constantinople a third small triumphal column with spiral reliefs, although this is not certain.—*Monuments et Mémoires, Acad. Inscrip*, T. II, pp. 99–130.

ITALY.

Prehistoric and Classical Antiquities.

A BRONZE DISC IN THE CABINET DES MÉDAILLES, PARIS. — In the Cabinet des Médailles there are two bronze medallions with similar designs; one of these only, and that apparently a forgery, is described in the catalogue of M. Chabouillet, the other is genuine. In the XVII century it appears to have belonged to the collection of Cardinal Gasparo di Carpegna. How it passed into the possession of the French government is unknown. Upon it is represented in the upper portion an eagle holding thunderbolts, and on either side groups of soldiers, the foremost of whom carry standards. On one side we find the inscription *leg(io)*xx *V(aleria) V(ictrix)* and on the other *leg(io) secunda Augusta*. Below the eagle is inscribed the name *Aurelius Cervianus*. The lower portion of the medal is filled with animals; to the left a hound is chasing a rabbit; in the centre another hound is pursuing a stag; to the right is a lion and below two peacocks;

above them is inscribed *Utere felix.* The soldiers seem to be cavalrymen, since they carry oval shields. These two legions of Roman soldiers are known to have formed a portion of the army in Britain. They came there in the year 43 and remained until the end of the Empire. Their presence there is proved by a large number of inscriptions. The animals here represented are those which appear in the public sports held in the amphitheatre during the time of the Empire. That gladiatorial contests took place in the vicinity of Roman camps is proven by the representation of such contests upon a vase preserved in the Museum of Colchester. As Britain was abandoned by the Romans in the year 409, the disc must belong to the II, III or IV centuries. The surname Aurelius, borne by the owner of this object, makes it probable that the disc is later than the II century.—R. CAGNAT, in *Rev. Arch.*, March–April, 1895, p. 213.

TWO STAMPED TILES FROM DALMATIA.—In the National Museum of Bosnia-Herzegovina there are two fragments of stamped tiles of great interest. On one of them is stamped LEG IIII. Of the three legions which could come into question—the IV Macedonian, the IV Scythian and the IV Flavian—the character of the letters indicate the presence of the latter. We learn now for the first time with certainty that the legion which was stationed in Singidunum was represented by at least one Vexillatio of the army of Dalmatia. Four inscriptions of soldiers of the IV Flavian legion in Dalmatia have hitherto come to light. Neither of the inscriptions nor the stamped tile give us a certain date, but it seems likely that this legion replaced the IV Macedonian legion in the time of Vespasian. The second tile is stamped L XIII G, and tells us that a detachment of the XIII legion was for a time established in Bosnia. This tile was found in Velika Kladusa. Since Kladusa is near the supposed boundary between Pannonia and Dalmatia, the question arises to which province this place belonged. The inscription, dating from the beginning of the II century, tell us of the army of *Pannonia superior*, and if we suppose this stamped tile to be a reminiscence of this army, it follows that the town Velika Kladusa belonged to the province of Pannonia rather than Dalmatia. We may accordingly place the boundary line somewhat further south.—C. PATSCH, in *Roem. Mitth.*, IX, p. 233.

FONTANELLATO.—A PREHISTORIC TOWN OR TERRAMARA.—Prof. Pigorini completes in the *Scavi* for January, 1895, his account of the excavations in this *terramara.* The results of the excavations which he had already carried on from 1888 to 1893, have been described in previous numbers of the JOURNAL. The present notes report the discoveries made during 1894. The previous discoveries made on this site have been the principal means of giving a clear idea of the form and char-

acteristics of prehistoric stations of this class. Like all the other quadrilateral and trapezoidal stations, it is surrounded by a dyke which rests against a wooden line of palings, which rises on its inner side, while its outer side is surrounded by a ditch in which was running water from a neighboring current. Access was had to the station by a single wooden bridge across the middle of the south side, remains of which still exist. Carrying a line along the axis of this bridge until it reaches the northern wall, the station is thus divided into two equal parts—the eastern and the western—by means of a road from north to south. In the western half is the *palafitta* on which were the houses and their remains. In the eastern half this is to be found only at the two ends. The centre is entirely occupied by a most peculiar arrangement, namely, a ditch as wide as the outer ditch but much deeper and surrounding a rectangular area oriented in the same way as the station itself. In the centre rises an enormous accumulation of earth raised in the form of a parallelopiped, whose upper length is 100 m. from north to south and 50 m. from east to west. This area appears to Professor Pigorini to be a *templum* in the primitive meaning of the term, and perhaps it is the germ of what afterwards came to be the *arx* of the Italian cities and the *prætorium* of the Roman camp.

Outside of the area of the settlement near the border of the ditch, to the west and to the southeast, are two necropoleis of cremated bodies. One of these, that on the southeast, having been excavated, it was found that the inhabitants not only were in the habit of exposing vases containing the remains, but raised them on a platform supported by pales. The cemetery was also surrounded by a ditch which was crossed on the western side by a wooden bridge. In other words, they gave to the city of the dead the same respect and care as to the city of the living.

This is in brief the result of the first six years' work. Professor Pigorini in the excavations of 1894 determined to solve the following problems: (1) From what side and in what way was access had to the internal area, which he calls the *templum;* (2) by what means was it possible to sustain its four sides vertically along the edge of the ditch, and (3) is there anything in the area itself to determine its purpose. The first problem was solved by the discovery in the middle of the western side of a considerable mass of wooden beams along a width of only 15 m. Not a trace of such remains was found anywhere else; here evidently rose a wooden bridge which was the means of access. The bridge has further importance in determining the internal arrangement of the prehistoric station, for its axis divides the station from east to west into equal sides; also the southern and the northern

in exactly the same way as the larger bridge leading into the station and which is at right angles to this bridge, divides it equally from north to south. These two bridges are therefore the signs of the two principal streets, the *Kardo* and the *Decumanus*, which met in the centre of the city. It appears as if these two streets were quite unequal in width; the main street from north to south being 15 m. wide and that from east to west 7½ m. The wider of the two was apparently the *Kardo*. The second point was to ascertain how the sides of the artificial mound could be sustained along the edges of the ditch. After determining exactly the four corners of the area, deep trenches were opened in three of them; but the solution of the problem was given only at one corner; that of the N. E. It is known that in that part of the valley of the Po in which this station is situated, the surface consists of a sandy yellowish clay deposited by recent overflows and below this a tenacious and bluish sandy clay which may have been transported from the hills in the quaternary period by the great water course. As the yellowish clay is permeable, all the wooden substances in it were consumed in time without leaving the slightest trace. The bluish clay on the contrary preserves forever all the vegetable remains that are lodged in it, including even leaves. Now, the great mass of earth accumulated on this eastern side of the station consists of the yellow clay, so that whatever wooden structures may have been used along its sides to strengthen it, no trace could have been left of them at this late date. Fortunately, in a certain part of the station to the N. E. and E. when the inhabitants fixed their abode here, the yellow clay had but just arrived, so that it overlaid but very slightly the blue clay. Hence, it was with the blue clay that the N. E. corner was constructed. It was here that the discovery was made that the base of the mound was not merely of earth, but consisted of groups of pales mixed with clay. The bunches of pales and the single pales were sunk as far as the natural soil and were perfectly well preserved. They formed a support about 5 m. wide in which the pales were arranged in six parallel lines 90 cm. apart. From the top of this rampart the earth rose on an incline.

Professor Pigorini's attempts to solve the third problem, that of the use of this mound and the constructions upon it, was almost fruitless, because the mass of earth forming it was of the yellow clay, and any constructions of wood must have been long since destroyed. One very interesting and singular fact was, however, discovered; that was the existence along the axis of the bridge of a long ditch 25 m. in length and 5 m. in breadth with a maximum depth of about 3.50 m. This ditch was found to be filled with earth mixed with Roman bricks. This shows that when the station was abandoned by its original in-

habitants and occupied by the Romans, the ditch was still open and had been kept open from the beginning. In clearing it out it was found that the bottom was divided into five rectangular wells; the central being square and measuring 150 m. each way; the other four measuring in every case 250 m. by 5 m. Each well was covered with a slab sustained by crosspieces, a number of which were in good preservation. All the five contained a considerable quantity of shells of the *unio pictorum*, a few remnants of historic pottery, some bones of quadrupeds, etc. It is evident that the ditch was kept open in order to show the presence of these five wells; but the object of the wells seems a mystery. No such thing has been found in any other prehistoric station nor in any early cities. The only light thrown upon their use came from Germany from two Roman camps in the province Hesse Nassau at Zugmantel and Saalburg. In these camps Jacobi, who has so much to do with discoveries of this kind in Germany, discovered rectangular wells about the same size dug in the earth along the line of the *decumanus* and containing objects similar to those found in the wells of this station. These objects must be regarded as the *Signa*, which were buried at the time of the laying out of the camp.

GROTTAMARE.—THE TEMPLE OF THE GODDESS CUPRA AND A VOTIVE RELIEF.—Prof. Gamurrini writes a short paper in the *Scavi*, January, 1895, on the site of the temple of the goddess Cupra. The ruins of the ancient Cupra Marittima, in the province of Picenum, belong to the period when the population of the early city was forced to remove from the stronger and more elevated site of the primitive city, the exact location of which has been doubted. Here were situated the famous Tyrrhenian Pelasgi and their ancient temple dedicated to the goddess Cupra and recorded by Strabo. Gamurrini locates the temple on the site of the church and monastery of S. Martin, near Grottamare. The fact that the abbey of S. Martin is regarded as one of the first in Italy, makes it extremely probable that the monks, with their usual desire to extirpate the ancient religion, erected their church on the site of the temple itself, dedicating it to S. Martin, who was regarded especially as the conqueror of the demon of Paganism. This is confirmed by the antiquities still remaining, both within and without the church.

The most interesting of the ancient objects in the church is a bas-relief upon a square cippus, a good work of art of the close of the Roman Republic. It probably was one of the votive cippi dedicated in the temple. The excavations made show that the church rises not directly upon the site of the temple, but upon that of the adjoining baths, which were built by the Emperor Hadrian. The interest of the votive cippus just referred to consists in the peculiar helmet which is carved upon it in natural size; it is carefully modelled, and every

detail is well given. Its distinctive peculiarity consists in curved ram's horns on the sides of the headpiece to cover the temples. Above the crest rise in unbroken line heavy feathers, probably cocktails. Of course this helmet, of both martial and elegant appearance, was copied from a bronze original, but nothing like it in form or decoration had hitherto been discovered. It was already known that horns were used by different peoples on their helmets; such was the custom with the Scandinavians, Germans, Gauls, Thracians, Epirots, *etc.*, but in none of these cases were the horns ram's horns. By comparison with two bronze helmets in the Museum of Ascoli, which, though badly injured, appear to have been decorated with ram's horns imitated in bronze, and from information of similar helmets discovered in other parts of the province of Picenum, and even as far as Novilara, near Pesaro, it appeared certain that this basrelief from the temple of Cupra reproduces the national helmet of the people of Picenum, and perhaps of the Sabellic peoples. This superbly plumed crest, which added in apparent height and impressiveness to the figure, may be the same noted by Livy in the description of the arms of the Samnites. The basrelief may, therefore, have been consecrated by a military leader.

POMPEII.—TREASURE OF BOSCOREALE.—The importance of the treasure found at Boscoreale, near Pompeii, cannot be exaggerated. Nothing equals it save the famous Hildesheim treasure. It evidently belonged to some wealthy inhabitant of Pompeii, who fled with it to his country house, hoping to escape the catastrophe. Baron Edmond Rothschild has bought it and presented it to the Louvre.

ROME. — RECONSTRUCTION OF THE ARA PACIS AUGUSTAE. — The Emperor Augustus tells us that: *Cum ex Hispania Galliaque rebus in his provinciis prospere gestis Roman redii Ti. Nerone P. Quintilio consulibus aram Pacis Augustæ senatus pro reditu meo consacrari censuit ad campum Martium, in qua magistratus et sacerdotes et virgines Vestales anniversarium sacrificium facere iussit.* This *ara* was erected or *constituta* on the 4th of July, the year 13 B. C., and on the 30th of January of the year 9 B. C. it was dedicated, *dedicata est Druso et Crispino cos.* Professor von Duhn was the first to recognize, as remains of this important monument, the marbles which had been excavated at various times, that is before 1550, then in 1568 and finally in 1859, on the site of the Ottoboni-Fiano palace, between the Via in Lucina and the square of the same name. Only the result of the last of these excavations has remained in the Fiano palace; the marbles found before this were dispersed, and are now preserved at Florence in the Uffizi, in Rome at the Villa Medici, one slab in the Belvedere Court at the Vatican and one in the Louvre at Paris. The reliefs and ornaments divide the

slabs belonging to this monument into three classes: (1) Slabs forming a frieze representing processions; (2) similar slabs with festoons suspended from bucranes; (3) larger slabs covered with beautiful vines and flowers. The common origin of these three classes, so far as they existed at the Uffizi, had already been recognized by Dütschke, *Antike Bildwerke* in *Oberitalien* III, p. 11. Dütschke was not, however, aware of the existence of the other remains outside of the Uffizi; it was von Duhn, in a pamphlet published in 1879 and afterwards in 1881, who gathered all the material together and undertook the restoration of the entire monument. His plates reproducing the sculptures were extremely useful, but his architectural reconstruction is entirely erroneous and fantastic, because he started with the idea that it was an altar.

Professor E. Petersen, in a long and convincing article in the *Roem. Mitth.* of the German Institute, undertakes a careful reconstruction of the *Ara*. He first shows that von Duhn's idea that the slabs were mostly basreliefs applied to a solid background is untenable, because all the slabs were originally carved on both sides, and this is proved by the correspondence of Cardinal Ricci, who had the blocks sawed in two. The only explanation of the use and position of these blocks, as Petersen shows, is to suppose that they were seen from both sides and were erected upon a basement in the shape of a frieze. A study of the dimensions and thickness of the blocks shows that they can be divided into two series. The first series 1.55 m. high representing the processions; the second series 1.30 m. wide and a little thicker decorated with vines and flowers intermingled with birds. The greater size and thickness of the second series indicates that they formed a lower frieze upon which the smaller and thinner processional frieze was erected. The conclusion is that we have here not the constituent parts of an altar, but of an enclosing wall within which the altar, of which no trace has been found, may have been placed.

Without following the author in the intricate discussion, which extends over sixty pages of the Bulletin, we will simply give his results. He concludes that the enclosure forms a square measuring 10.16 m. on each side, by external measurement. The exterior of the enclosure is decorated with extreme elaboration; the interior is extremely simple. An entrance was had to the enclosure by means of a door of Ionic style 2.35 m. wide. The approximate height is reached by joining together two lines of slabs and adding a dividing band and a base, which together make a height of about 4 m. The basement and the architrave bring the total height to over 6 m.

Now, the subject of the upper of the external reliefs is a sacrificial procession in two main sections. These two divisions are represented

as moving from the centre of the rear toward the front, as in the Parthenon frieze, meeting at the door of entrance. Each part is therefore divided in three sections: two extremely short ones at the beginning and end enclosed between pilasters, and one uninterrupted long section occupying the entire length of each side. Nearly 18 m. of this frieze remain. The left-hand frieze is complete, and is composed apparently of civil persons. The procession on the right is wanting in more than the length of 3 m. Here almost all the principal figures are provided with ritual attributes in contrast to the civil figures of the opposite side. The *camillus* bears the figure of a *lares*; the figure wearing the *apex* is regarded as Augustus by von Duhn; and the series closes with two figures also wearing the *apex*. Probably the other two Flamens between the former and the latter appear to have been the Sacerdotal College. After this comes the figure with the axe, and after him the leader of the entire procession of men, women and children. He is represented as an old man, and the connection between him and all the following figures is made certain by the way in which a little child, probably his grandson, is holding on to his toga, turning his head toward the woman who follows, while a youth bends over the boy. Then come a handsome youthful couple, the parents of two children, one of whom each is holding by the hand. Three or four other figures are closely united to this group, and with them form a numerous and evidently a distinguished family. The heads are characteristic, but according to the style of the time of Augustus, more ideal than the art immediately preceding or following it. Hence it seems hazardous to attempt to identify, with the help of coins or other material. It is more the general correspondence and the grouping together of persons of such number and age that makes probable the interpretation of Dütschke, which although criticised has been genally adopted, for example by Milani in the German *Bullettino*, 1891, pp. 288 and 316. This opinion of Dütschke is that we have here the family of Augustus. Petersen differs somewhat in his individual identifications and would recognize the different members of the family in the following order: Augustus with Lucius and then Livia; then Anthony with Livilla, Drusus and Germanicus; after them Julia and Julia the younger and Tiberius. The boughs carried by many of the figures in the two processions are not of olive, as Milani thinks, although this would be of course the emblem of peace, but they are of laurel, because at Rome peace was right only when preceded by victory. Also, the laurel which was sacred to Apollo, the special divinity of Augustus, was his favorite tree, and hence is reproduced on the altars of the *lares*. To Apollo also belong the swans that rest above upon the vines of the outer walls, in the midst of which were also figured crowns of laurel.

The procession starts from a central group in the rear opposite to the point where the altar stands in the interior. Three figures are represented, which were interpreted at first as the three elements—air, water and earth; but the interpretation of Petersen is, that we have here a representation of mother earth, the producer of flowers and fruits, of animals and of the human race, accompanied, as it is in reality, by water and by air in the form of two secondary nymphs. It seems as if Horace had a relief of this sort under his eyes when he composed the following strophe of the *Carmen sæculare*, or that the artist of this relief was inspired by these few verses:

fertilis frugum pecorisque tellus
spicea donet Cererem corona,
nutriant fetus et aquae salubres
et Jovis aurae.

This poem was composed partly before the return of Augustus in 13 B. C., and hence before the construction of the *ara pacis*, while other parts were contemporary with it. In them praise is given for the reëstablishment of faith and moral peace and justice; but as the basis of all this moral prosperity, praise is given also to the material prosperity, fertility and abundance in very much the same spirit as our relief. Petersen calls attention to the fact that the same idea of the *Carmen sæculare* is expressed upon the exquisite reliefs on the breastplate of the famous statue of Augustus. The idea of the pacification of the earth, and its consequent rejoicing and prosperity, was connected with Augustus, not only during his reign but afterwards, and was variously called *Securitas Aug.*, *Felicitas August*, or *Publica* or *Saeculi;* and it was also called *Pax Aug.* It was therefore quite in harmony with these ideas, that the pacified earth should be the starting point for the great procession celebrating the peace of Augustus in connection with this commemorative monument. This idea is confirmed by the theory of Petersen, that the sacrifice which is being offered by this procession is a sacrifice to mother earth or Tellus, whose temple was situated in the *Carinae.* The second divinity—for there are two—to whom the procession does honor, is Peace; and as the figure of Tellus was at the head of one of the two processions, so the figure of Peace was at the head of the other.

The ornamentation of the interior appears to have consisted of very simple features. There were groups of pilasters connected by festoons hanging from bucranes (or ox-skulls) resting upon a moulded base and supporting an architrave. In the centre of one of the sides opposite the door, and corresponding to it in width, appears to have been a niche, in which may have stood a figure of the fertile earth. A very careful comparison is instituted by Petersen between this interior, on

the one hand—with its details, its altar, its niche and its statue—and, on the other hand, many architectural features imitated in Roman frescoes, which might throw some light upon his construction of the details. He shows how the aedicula should be reconstructed with polychromatic decoration, both from the analogy of these paintings and from some fragments of painted sculpture, evidently remains of a similar structure found in 1888 in the former Villa Ludovisi.

Attention is called by the author to the fact that the reconstruction which he gives of this monument does not at all agree with its plan as given by Lanciani on plate VIII of his *Forma Urbis Romae*.—PETERSEN in *Roem. Mitth.*, IX, 1894, pp. 171-228.

FRAGMENT OF A VOTIVE RELIEF IN THE MUSEUM OF THE CAPITOL.—In the year 1882 the Glyptothek at Munich acquired a votive relief (Brunn, *Beschreibung*, No. 85 a), the genuineness of which has been universally recognized. The chief ground for doubt has been the isolated character of this monument. It seemed to be the only example of a development of the votive relief upon Greek soil analogous to the decorative reliefs of Alexandria. Earlier examples from this series seemed to be wanting. Amelung publishes in the *Roem. Mitth.* a relief in the Museum of the Capitol, which forms an early link in this series. Here are represented Asklepios and Hygieia, and at their feet the acred serpent. The god is seated upon an armchair and wears as himation, which covers the lower portion of his body and his back. In his left hand he carries an attribute, which seems to be a sceptre. In front of him Hygieia is standing in graceful attitude leaning upon a quadrangular stele. In the background is a portico represented by quadrangular piers supporting an architrave. In front of one of the openings hangs a curtain, which forms a background for the figure of Hygieia. The surface of this monument has suffered considerably, and certain portions, the head of Hygieia, the head and upper portions of the serpent, the two legs of the armchair and some minor details are restorations. In the *Nuova Descrizione del Museo Capitolino*, it is suggested that to the right of these figures there may have been represented a number of smaller figures in adoration, but for such a restoration there seems to be no ground whatever. At most we might suppose the presence of the other daughters or the sons of Asklepios. The type of Asklepios is important for determining the date of the monument, since it belongs to the IV century and is analogous to the Asklepios of Melos. The attitude of Hygieia is similar to that of the Satyr with the flute, dating from the beginning of the III century. Parallels for the drapery of Hygieia are found in the Polymnia of the Vatican, the type of which belongs to the second half of the IV century, and stands in close relationship to Praxiteles, and in that of the

Muse of the Chigi Rilief, *Roem. Mitth*, 1893, pl. II–III. Since all of these parallels are drawn from Attic work of the last quarter of the V century, it seems probable that we have before us an Attic monument. In comparison with this the Munich example is in much higher relief and richer in detail, forming a later development of the series represented by the fragment in the Capitol. We may now find other votive reliefs dating farther back in the IV century; for example, the relief of Herakles in the Museo Archeologico in Venice and a fragment of a votive relief to Herakles from Ithome (Schoene, *Griech. Reliefs*, T. XXVII, No. 112), also two votive reliefs to Asklepios and Hygieia from the south side of the Akropolis (*Bull. de Corr. Hell.*, 1878, pl. VII–VIII). In similar manner examples of votive reliefs from the V century, namely, the reliefs of Nymphs, exhibit in the background a rock before which is seen the upper half of the body of Pan; in the IV century such reliefs assume the form of a grotto, in the midst of which Hermes dances with the Nymphs, while Pan and Acheloos appear upon the outer edge. We may not, therefore, infer that Greek art in the period of its highest bloom rejected backgrounds in relief altogether; such examples appear in minor works of art, and especially in votive reliefs.—W. AMELUNG, *Roem. Mitth.*, IX, p. 75.

INSCRIPTION OF THE ARVAL BROTHERS.—There has been found not far from the castle of St. Angelo an interesting fragment of an inscription belonging to the apse (?) of the Arval brothers. It is part of the solemn invocation in which the clergy, at the beginning of every year, expressed good wishes for the safety of the emperor. For the following reasons it belongs to a very early date and to the years between 50–54 A. D., in the reign of Claudius. It is inscribed upon a marble tablet of narrow dimensions, measuring only 0.26 m. in width, each line containing only about twenty letters. A second peculiarity is, that while all similar inscriptions are in the name of the head of the priesthood, *fratrum Arvalium nomine*, in this inscription, on the contrary, the formula used is *pro conlegio fratrum Arvalium*. These two peculiarities are to be found in only one other inscription of the series, which is known to have belonged between the years 50–54, and there are reasons for believing that the two are part of one and the same tablet registering the sacrifices of September 23d and 24th, and mentioning the annual supplications on January 3d for the safety of Claudius. Professor Gatti restores the preamble and the text of the supplication in the *Not. d. Scavi*, 1894, pp. 363–364.

MUSEUMS.—The Museum of National Antiquities in the Baths of Diocletian at Rome has opened new rooms of sculpture. M. F. Bernabei has, moreover, organized two rooms especially devoted to the Lombard period. One contains objects for the use of men, the other

jewels and other feminine ornaments.—*Chronique des Arts*, 1895, p. 95.

In these collections the Lombard period is for the first time adequately represented in its industrial arts by means of the contents of tombs discovered during recent years, and which contained a wealth of interesting objects such as heretofore had not been found.

CONCERNING THE APOLLO BELVEDERE.—H. Freerichs, in a study entitled *Der Apoll von Belvedere* (Paderborn, 1894), from a number of observations, comes to the rash conclusion that the Apollo was found without the left lower leg, without feet, and without the tree trunk. As his argument is partially based upon the character of the marble, we may observe that greater differences exist between portions which are undoubtedly of the same block than between those portions which he distinguishes as old and new. There is little foundation for his other arguments in proving his original thesis.—PETERSEN, *Roem. Mitth.*, IX, p. 249.

STATUE OF THE SEATED ASKLEPIOS.—The statue of the seated Asklepios found in the middle of the north side of the Pincio has been recently cleaned, so that we may the more readily detect the restorations and thereby distinguish the original parts of the statue. The marble seems to be Pentelic, therefore Greek. According to Matz and von Duhn the restorations are: the left arm from the middle of the upper portion, the lower portion of the right arm, the neck, a large portion of the serpent and the right knee. The bearded head is declared antique and original, and it is supposed that the left hand held a sceptre. This would make the statue very much like the statue of Thrasymedes. But the head is certainly not original. It is more advanced in style and of different marble; moreover, the throne is entirely a restoration with the exception of the front legs and the middle portion of the back. The original throne was of the same type as that in the statue of Menander. Less successful restorations have been the right knee, a large portion of the left, together with the outer half of the upper portion of the left leg. The left as well as the right arm, together with a portion of the shoulder, are entirely restored, also a portion of the left side. The right arm and hand were in all probability brought into relationship with the serpent. It is impossible that the left hand should have held a sceptre, as was probably the case in the two reliefs from Epidauros. The position of the left arm would in all probability be similar to that of the Menander. Judging from the simplicity of the drapery and the character of the nude portions of the statue, it may be assigned to the V century. The form of the throne is found in Attic tomb reliefs, and the pose is like that of

Zeus and Hephaistos on the Parthenon frieze.—PETERSEN in *Roem. Mitth.*, IX, p. 74.

CASTS AND PHOTOGRAPHS OF THE COLUMN OF MARCUS AURELIUS.—Scaffolds have been erected around the column of Marcus Aurelius with a view of taking moulds and photographs of all the spiral basreliefs which cover the surface of this column. The funds are supplied by the Emperor of Germany and the Grand Duke of Baden. The work is under the direction of Professors Petersen and Domaszewski, and the architectural part under the direction of Professor Callerini. The photographs will be taken by Mr. Anderson and the moulds by Sig. Piernorelli. After this has been done an illustrated publication with explanatory text will be brought out at Munich by the successors of Bruckmann.—*Chronique*, 1895, No. XIX.

The above work has disclosed the fact that the reliefs of the column are in a very poor state of preservation, and that it was ample time they were reproduced and saved for science.

A MIRACLE ON THE COLUMN OF MARCUS AURELIUS.—For the study of representations of Germans in Roman art, the column of Marcus Aurelius furnishes an important document. Portions of this column have been already photographed, and enable us to substitute a reasonable interpretation for the myth of the *Legio Fulminata*, which is found early in Christian writers. In the writings of Apollinarios, Tertullian, Eusebios, Orosius, and in the later writings of Xiphilinos, Zonaras and Kedrenos, we find with more or less variation the following five points regarding this myth: (1) the antithesis between the rain which refreshed the Romans and the lightning which destroyed the enemy; (2) that both rain and lightning followed the prayers of the Christians in the twelfth legion; (3) that this legion was on that account named κεραννοβόλος (Lat. *fulminata*); (4) that this name was given by the Emperor Marcus Aurelius; and (5) that subsequent persecution of the Christians was prohibited. A study of the photographs shows us that the representation of lightning and of the rain are not so immediately connected as would appear from these accounts, although they are brought into apparent relation to each other through the spiral character of the representation. It also appears that the individuals upon their knees are not Romans, but Germans. It is also known that the name *Fulminata* was given to this legion before the battle represented. The supposed letter of Marcus Aurelius either had no existence or was a forgery.—PETERSEN in *Roem. Mitth.*, IX, p. 78.

AN INTERESTING LAMP.—At a meeting of the *Académie des Inscriptions*, M. Georges Perrot read a communication from Dr. W. Helbig, upon a Roman lamp belonging to Sig. Martinelli, of Rome, which bears a bas-

relief of a novel character. The style of the art and the lettering of the inscription assigns it to the beginning of the imperial period. The design shows two gladiators, heavily armed, who are attacking each other; while a *lanista* separates them, holding a staff in his right hand, and in his left what looks like a palm. Behind each gladiator is a crown. Both are armed more or less in the style of those called *Samnites* or *secutores*, though only one of them has the characteristic curved sword (*sica*). Beneath the bas-relief is a *titulus* containing the inscription:

SABINVS
POPILLIVS

These two names cannot belong to the gladiators; for it is altogether opposed to Roman usage to distinguish one man by his *cognomen*, and another by the name of his *gens*. Besides, the names are those of citizens, and could hardly be given to gladiators. Most probably the *titulus* indicates the name of the maker of the lamp: Popillius Sabinus —this inversion of the *cognomen* and gentile name being common as early as Cicero's time. Moreover, there exist several terracotta cups, bearing the name of a maker called Gaius Popilius: one of them gives also the name of the town, Merania in Umbria, where this Popilius had his workshop. These cups belong to the end of the third and the first half of the second century B. C. Is it possible that the maker of the lamp was a descendant of the maker of the cups? Behind the crown on the right is the letter S, and above the head of the *lanista* are the letters MIS, which Dr. Helbig did not attempt to explain.—*Academy*, Dec. 1, 1894.

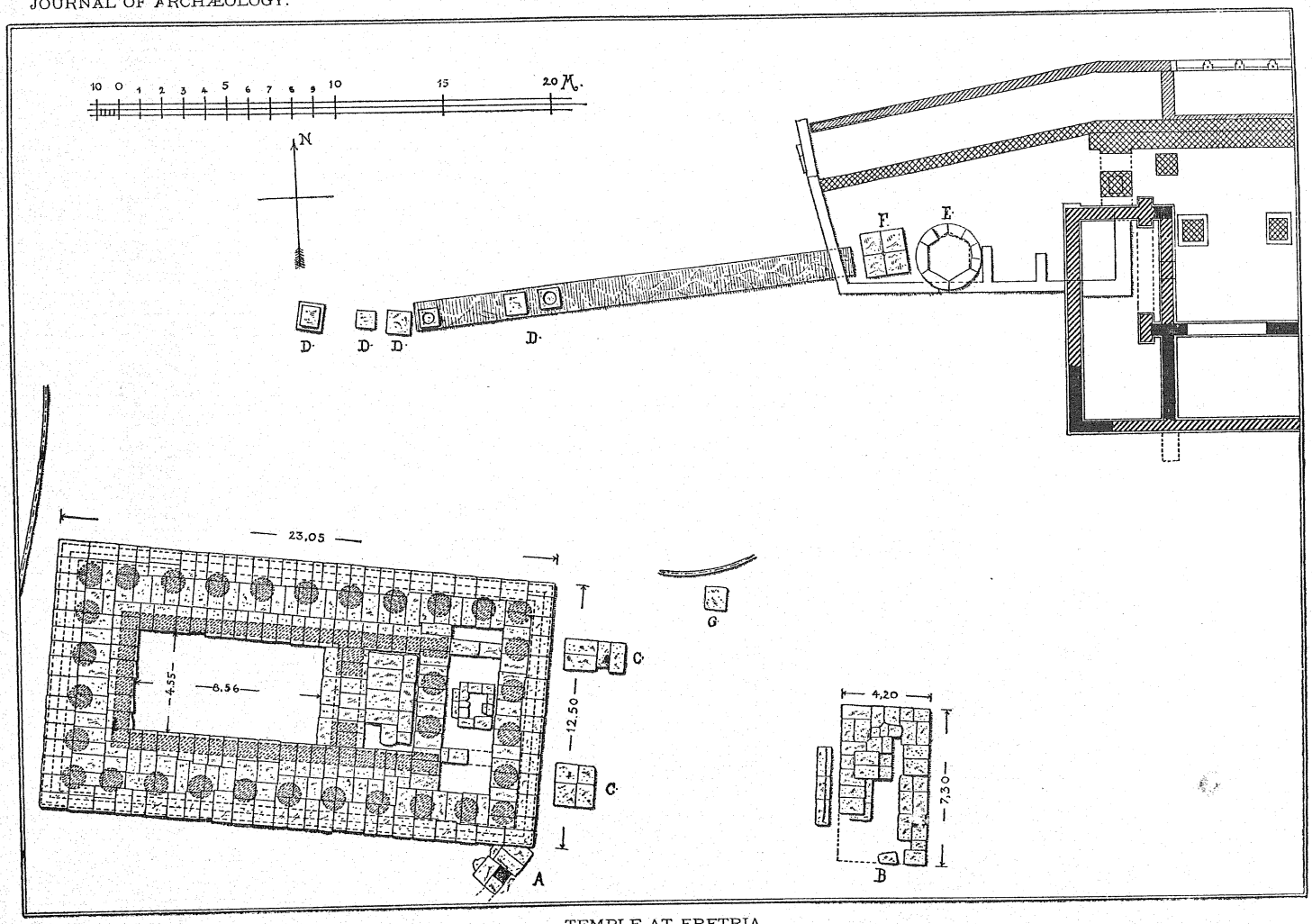
RONCAGLIA.—DISCOVERY OF THE ANCIENT THEATRE OF AUGUSTA BAGIENNORUM.—Excavations upon the site of the ancient city of Augusta Bagiennorum, led among other things to the discovery of the ancient theatre. No attempt was made to completely clear the area of the theatre. Trial trenches alone were dug at intervals, in order to ascertain its form, size and age. The *cavea* consists of three semicircular walls, the inner wall being connected with the central wall by radiating transverse walls between which are conical vaults. The middle wall was probably joined to the outer wall by a tunnel vault, which supported the marble seats. It is peculiar that these three walls did not by any means have a common centre, which may be explained by the presence of only two staircases at the ends of the *cavea*. The diameter of the orchestra is 22.20 m.; that of the surrounding wall 57.50 m.; the length of the scena 40.50 m.; width of the proscenium in the centre 7.20 m. and on the sides 5.25 m. Sufficient fragments were found to make possible the reconstruction of the decoration of the stage with its doors, pilasters, cornices, its thin slabs of colored marbles from its stuccoes, *etc.*—*Not. d. Scavi*, 1894, pp. 155–158.

SUBIACO.—STATUE OF ATHLETE.—In the *Jahrbuch Arch. Inst.* (1895, pp. 46–85) A. Kalkmann discusses *The Statue from Subiaco* (Pl. 1, 13 cuts). The statue has been published, *Ant. Denkm.*, 1 Pl. 56, and Brunn-Bruckmann, *Denkm.* No. 249. Head, left arm and nearly all the right arm are missing. The left arm once touched the right knee. The right arm extended upwards and forwards. The right foot is advanced, the knee much bent. The left knee almost touches the ground. The treatment of muscles and anatomy is that of the early v century. The position appears by comparison with vase-paintings, *etc.*, to be that of rapid running. Myron's Ladas must have resembled the bronze original of this marble figure, but comparison with Myron's discobolos shows that the original of the figure from Subiaco belongs to a different school and a slightly less highly developed art than that of Myron. Possibly the artist of this work was Pythagoras of Rhegion.

VETULONIA.—A GOLD FIBULA.—On the so-called *Poggio alle Birbe* on the hill of Vetulonia, close to a circle of stones where had been found two peculiar statuettes, one of a man and the other of a woman connected by a double bronze chain, there was found by chance a wonderful gold fibula made of solid metal and the body of which is entirely decorated in most delicate and beautiful style with tiny gold granules hardly perceptible to the eye. The fibula is of the form which is called *a pulviscolo*. On one side are two large sphinxes affronted and standing touching each other with a raised forepaw. One has a horse's head with a giraffe's neck and upon its back is a quadruped like a deer. Back of it and under its hind legs are two other quadrupeds while directly under it stands a man. The other sphinx is winged and with a male head and with a quadruped back of him and one under him. Between the two sphinxes there rises upon his hind legs another animal, a strange winged antelope-like creature. On the other side there are also two sphinxes with similar subordinate figures. The two bases of the body or *mignatta* of the fibula are also decorated with figures of animals.—*Not. d. Scavi*, 1894, pp. 335–360.

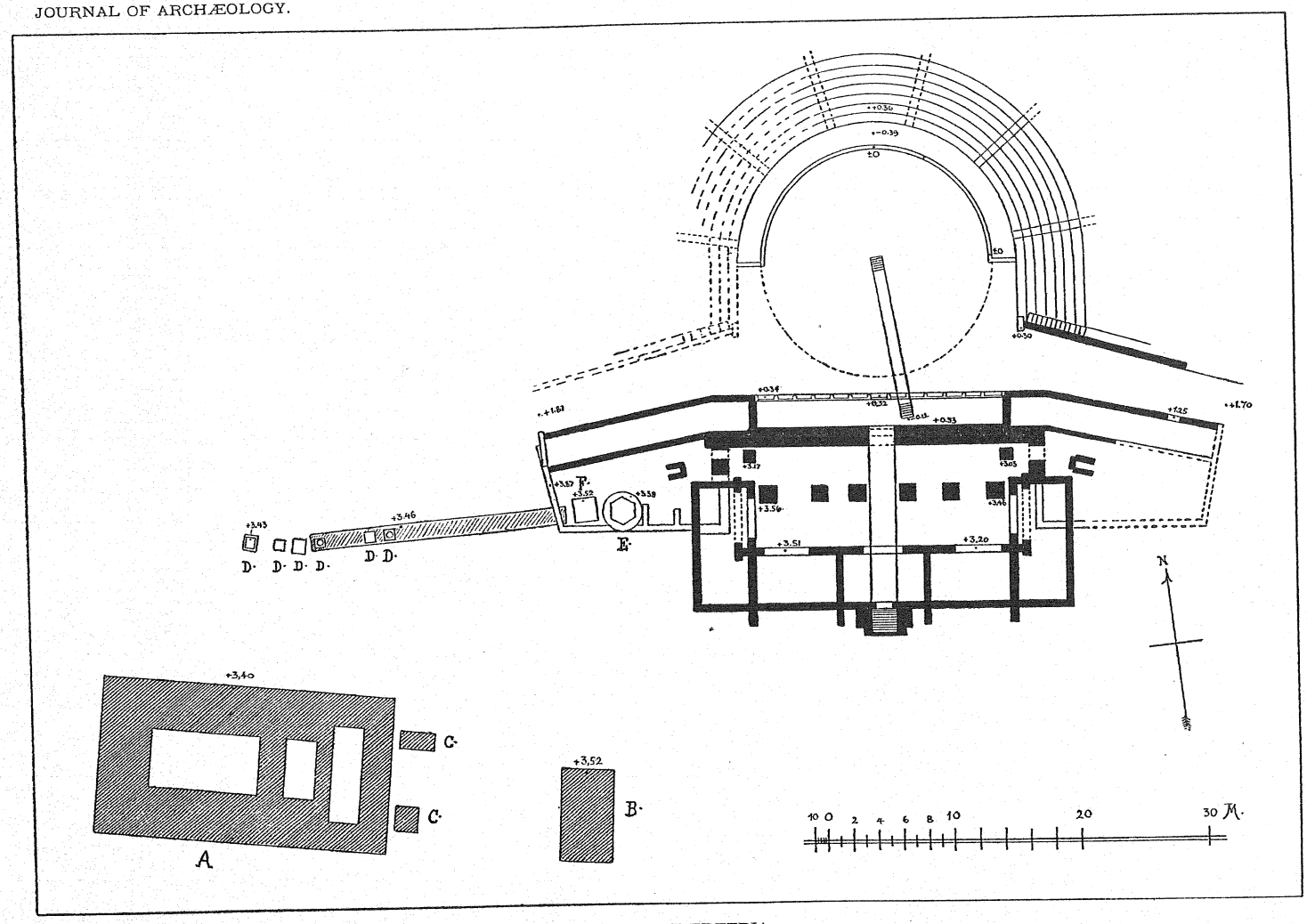
A. L. FROTHINGHAM, JR.
ALLAN MARQUAND.





TEMPLE AT ERETRIA.





THEATRE AT ERETRIA.

AMERICAN
JOURNAL OF ARCHÆOLOGY.

Vol. X. OCTOBER-DECEMBER, 1895. No. 4.

UNIVERSITY OF PENNSYLVANIA EXPEDITION TO BABYLONIA.

III. THE COURT OF COLUMNS AT NIPPUR.

[PLATE XXI.]

In a former article in the AMERICAN JOURNAL OF ARCHÆOLOGY, Jan.-March, 1895, pp. 13–47, I described at some length the excavations of the temple of Bel at Nippur. The site of the temple occupies but a small portion of the ruin mounds at that place, and far the larger part of our finds of inscriptions were excavated in other portions of the ruins. One large cache of fine baked tablets of the Cossaean dynasty was discovered in connection with a large building of most interesting character on the southwestern side of the Shatt-en-Nil, directly opposite the temple, in that part of the mounds marked I in the plate accompanying my last article, and also in the plan of levels (PLATE XXI). In the first year of our excavations our camp was pitched on the highest point of the mounds on that side of the old canal bed, marked 24 metres on the plan of levels, near the figure I on that plan (FIG. 48). There was some delay in commencing excavations because, not having filed a topographical plan at the time of application for a firman, according to the law, it was agreed that after reaching Nippur we should not begin to excavate until such a plan had been prepared, and accepted by the Turkish government.

During the few days while the plan was in preparation we were occupied in building our camp. For this purpose bricks were needed, and workmen were sent out to gather them wherever they could be found upon the surface of the mound. Some of the men engaged in this search found a brick structure just appearing above the earth in a gully beneath the camp to the northeast, and proceeded on their own responsibility to excavate the structure and remove the bricks. Some of the bricks which they brought in were inscribed. This led to an investigation of

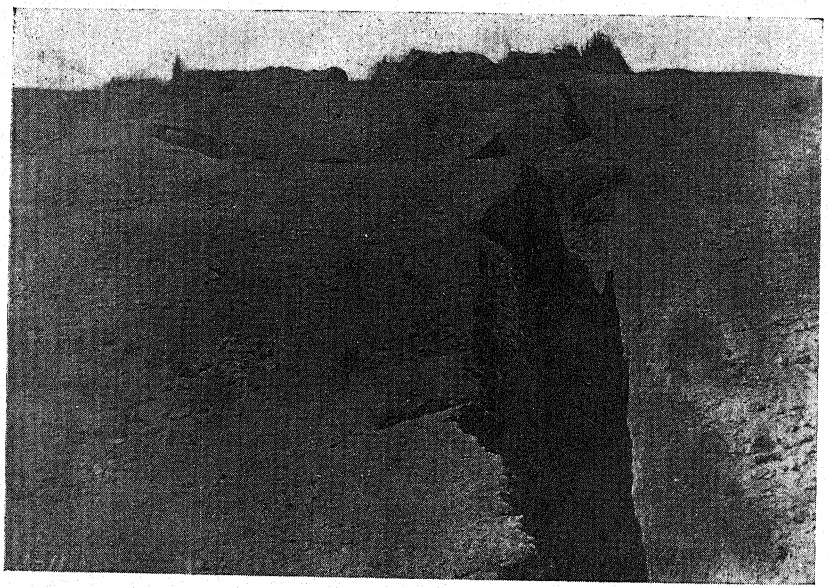


FIG. 48.—CAMP FROM EAST, FIRST YEAR, 1888–89, GREAT TRENCH IN FOREGROUND.

the source of supply, and induced us to commence excavations at the point where brickwork had been discovered containing inscribed bricks. The brickwork proved to be part of a tomb made of bricks taken from various structures, chiefly on the temple hill, prominent among which were bricks of Ur-Gur, Ishme-Dagan and Meli-Shiha (Assurbanipal). In this tomb were found one coffin, several bodies, and great quantities of pottery, beads and small objects. Not far away we discovered a second tomb (FIG. 49), containing at least ten bodies, buried at different times —some even after the roof had caved in. This tomb was built upon

a fragment of a brick column. All about both tombs were coffins —I had almost said countless coffins—of clay, side by side, in nests, one across another, two and even three bodies in one coffin. Sometimes jars had served as coffins. Indeed, the interments were in every conceivable fashion. Naturally we at first supposed that we had found the necropolis of Nippur, and the columnar construction which we unearthed at this point we at first imagined to have had some connection with the interment of the dead. But as our work proceeded it became manifest

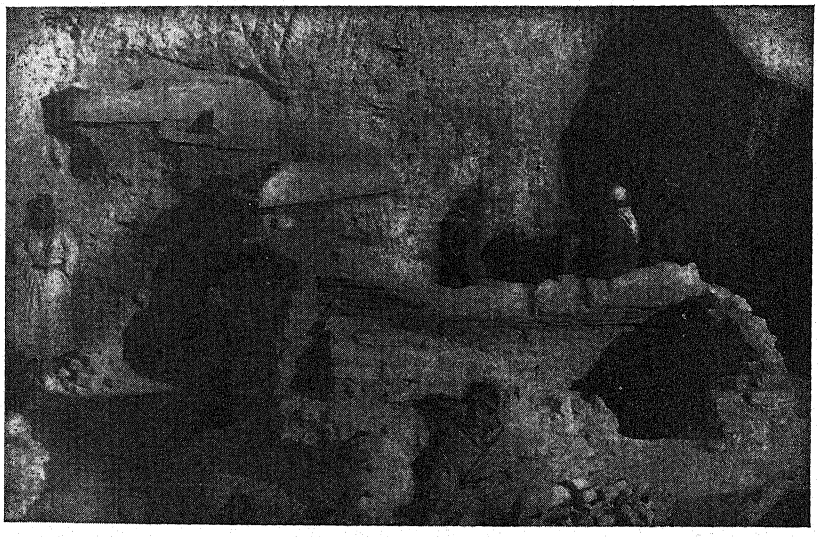


FIG. 49.—TOMB AND COFFINS ON RUINS OF BABYLONIAN PALACE.

that, whatever might have led to the choice of this particular spot for so many interments, they had no direct connection with the intention of the building itself, every interment having taken place after the building had lain in ruins for a long period.

The building which we thus accidentally discovered, and which has not yet been completely explored, proved to be, next to the temple itself, the most interesting and ambitious structure excavated at Nippur up to date. The court of columns which we first laid bare (FIGS. 50 and 51) was fifteen metres square. The floor consisted of a pavement of unbaked bricks of small size and good make, two to three metres in depth. Around this, on three sides, ran a sort of edging consisting of a double row of burned

bricks, out of which rose four round brick columns resting on square pillars of brick descending about a metre beneath the surface (FIG. 52). The southeastern or fourth side differed from the other three sides only in the matter of the brick pavement between the columns, for on this side there were four rows of bricks instead of two, making a complete pavement. On the northeastern side, owing to the slope of the hill in that direction, the brick pave-

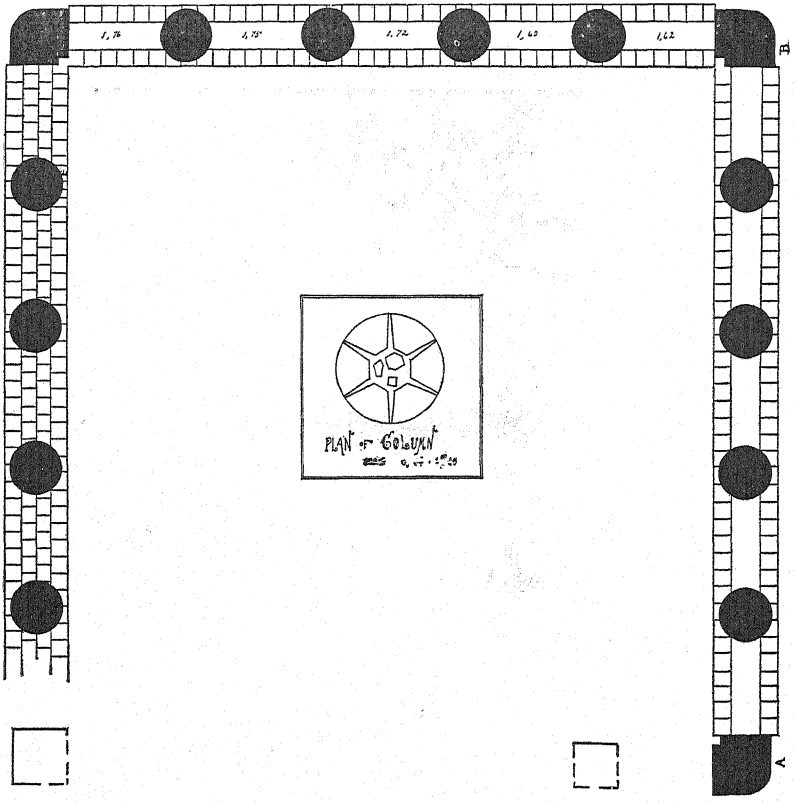


FIG. 50.—COURT OF COLUMNS. EXCAVATIONS OF 1889. SCALE, .008 M. = 1 M. SCALE OF PLAN OF COLUMN, .016 M. = 1 M.

ment and the foundations of the columns were almost entirely washed away; nevertheless, from the little which remained, it seemed probable that this side was the same as the northwestern and southwestern sides, and I have ventured to assume that this was the case. The corner columns were of a peculiar shape, partly rounded, partly square, as will be seen by a reference to the plan (FIG. 50). The corners were 12° off the cardinal points,

as in the case of the Temple. In front of this court, on the southeast side, were the remains of a long narrow pavement, on which stood two columns of larger size, but everything else in this direction was ruined by water.

The columns of the court were almost exactly a metre in

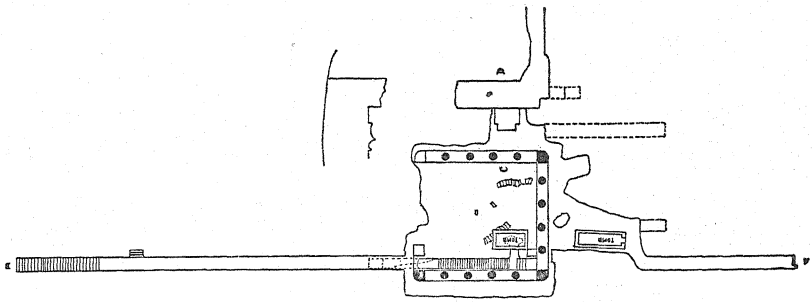


FIG. 51.—EXCAVATIONS ABOUT COURT OF COLUMNS, 1889.
SCALE, 0.00125 M. = 1 M.

diameter at the base. They had been so broken up by later generations to obtain material for building that an entire column could not be restored. The portions of the columns which were still in place, to the height of a metre or thereabouts, were constant in diameter, but some of the fragments which we found

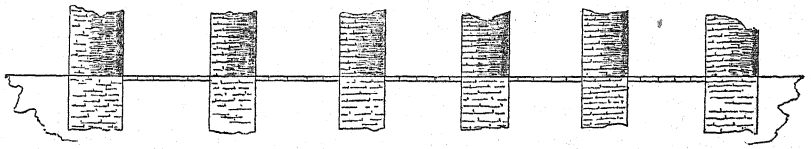


FIG. 52.—ELEVATION OF A B OF FIG. 51, SHOWING FOUNDATIONS OF COLUMNS.

scattered here and there were of so much smaller size that Mr. Field, the architect of the expedition in the first year, was inclined to think at first that they belonged to other columns. It was finally shown, however, that these small pieces, the smallest not being more than about half a metre in diameter, were parts

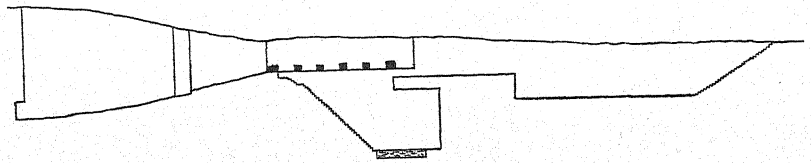


FIG. 53.—ELEVATION OF TRENCH A B OF FIG. 51, SHOWING DEPTH OF EXCAVATION BENEATH THE COURT OF COLUMNS; ALSO CONTINUATION AND LEVEL OF TRENCH TO BOTH SIDES OF SAME.

of the same columns. One fragment, somewhat larger than the

rest, showed that the rate of diminution of diameter in the upper

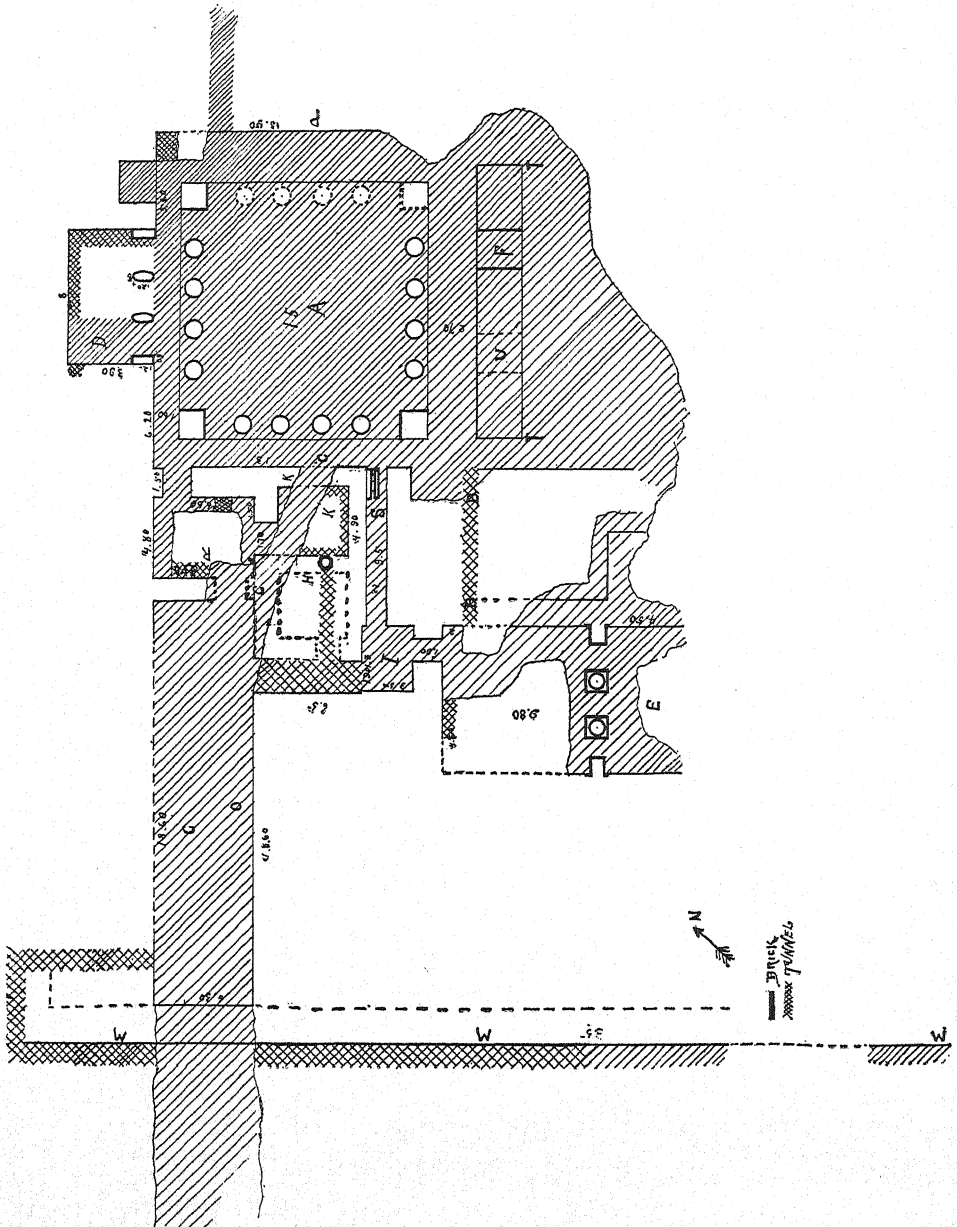


FIG. 54.—COURT OF COLUMNS AND SURROUNDING STRUCTURE. EXCAVATIONS OF 1890. SOLID STRAIGHT LINES ARE WALLS; DOTTED STRAIGHT LINES SUPPOSED WALLS; SHADED PORTIONS, EXCAVATIONS.

half of the columns was very rapid.

These columns were built of bricks especially made for the purpose. It will be observed from the plan in FIG. 50 that the six bricks of which the bulk of the column is composed form each a segment of a circle, with the apex truncated, so that they do not fit together in the center, but leave a considerable space to be filled up by brick fragments of various sizes and shapes, no special bricks having been made for that purpose. The bricks of the columns were laid in mortar, not in bitumen. They were red, hard and well baked, but somewhat brittle, tending to break up when the attempt was made to separate them from the mortar in which they were imbedded. After the columns were set up they were evidently dressed with some sharp instrument, for the purpose of cutting off projecting edges of bricks and mortar and making the surface of the columns smooth and true.

It will be perceived by an examination of the plan (FIG. 50) that the columns are not at exactly even distances from one another. So on the southwestern side the distance between the western corner and the nearest column is 1.62 m., while the distance between the southern corner and the next column is 1.76 m. The other spaces on that side are 1.69 m., 1.72 m. and 1.75 m. respectively. Such irregularities are rather characteristic of the architecture at Nippur, and I suspect of Babylonian architecture in general.

It was evident from the line of ashes which ran along by and outside of the columns and the heaps of ashes at each corner that, while the court itself was probably open to the heavens, palm beams had rested on the columns and supported a roof of a building about the court on all four sides. But at the outset the bearings of this evidence were somewhat confused, from the fact that after the destruction of the building its site was appropriated for burial purposes, and we were for a time inclined to suppose that part of the wood remains which we found in and about the colonnade were connected with the burials which had taken place there. Our excavations in the second year gave final evidence that this was not the case, but that the remains of burning were all to be attributed to the structure of which the court of columns formed a part; for in the second year we were able to show that this court was part of a very much larger structure, which was destroyed by fire.

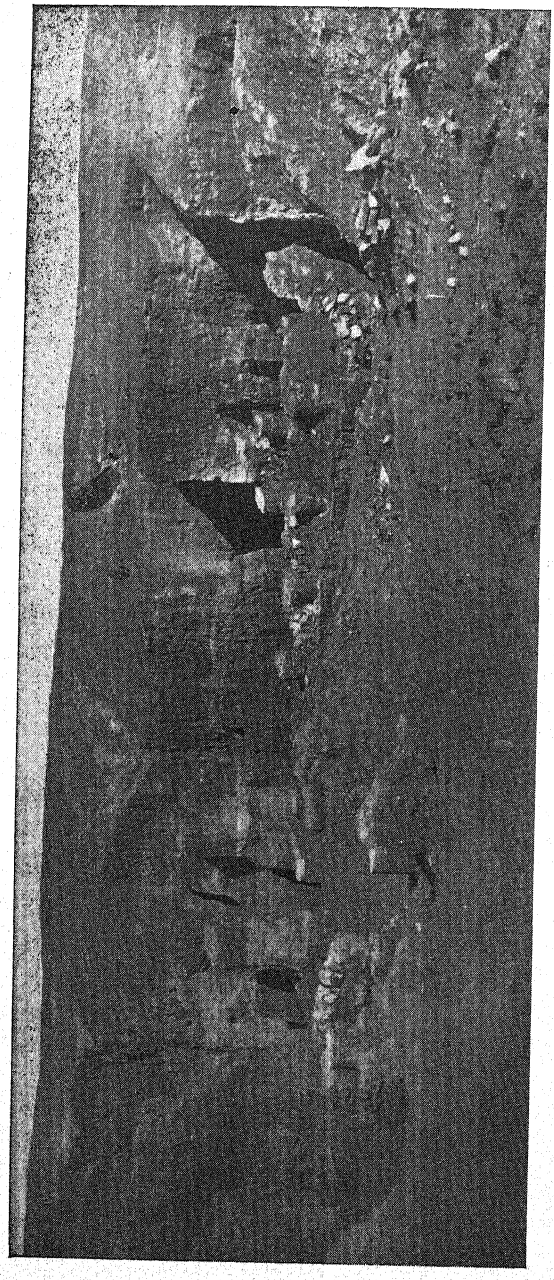


FIG.—55. COLONNADE ON CAMP HILL, SEEN FROM THE EAST; SHOWING ALCOVE ON NORTHWEST SIDE.

During the first year our trenches about the court had cut through a number of walls of mud brick, which were so disintegrated and ruined by fire that, with our lack of experience and the lack of experience of our men in detecting matters of this sort, we were unaware that we were cutting through walls. The accompanying plan (FIG. 54) will show so much of the building as we were able to excavate in the second year. To the northwest of the original court of columns we found an alcove (D on FIG. 54, also photograph, FIG. 55), which had evidently been roofed in, the roof being supported upon two rectangular oblong columns and two oval columns of brick, the axes of which were 1.20 m. and .60 m. These columns rested on a platform of three rows of bricks, beneath which was a metre of mud brick. As will be observed, this portico was not exactly in the middle. Nothing ever was exactly in the middle at Nippur.

The court had been surrounded by a building on all sides, excepting possibly the southeast—the walls of this building being of unbaked brick in large blocks. The wall bounding the court to the northeast (P on FIG. 54) was so destroyed by water, owing to the descent of the gully in this direction, that it could be traced only over a portion of its extent. On the southwest two passages opened out from the court, one of these giving entrance to a room (R), from which again another door opened into a long corridor (O). This corridor was explored by a trench begun in the first year and continued in the second year (FIGS. 53 and 56), leading under the highest part of the hill and reaching finally a depth of over thirteen metres. This was a peculiarly difficult portion of the mounds to explore, since although the trenches were purposely made of unusual breadth, they constantly showed a tendency to cave in; and although we were fortunate enough to have no accidents, nevertheless more than once we found our trench filled up and the work of several weeks destroyed. Such a cave-in occurred toward the end of the second year of our excavations; and as at that time we were also exploring the temple, and much work remained to be done there, I abandoned the further investigation of this building on Camp Hill in order to concentrate all of my force on the temple hill. Mr. Haynes had a somewhat similar experience in the first year of his work, and as his force was small and the amount still to

be done on the temple hill very great, he abandoned the exploration of this building after a few weeks' work, in which he had done little more than clear out the debris from some of my former trenches, and concentrated his work upon the temple hill and the hill marked X in the plan of levels, in which we made our greatest discoveries of tablets.

In the center of the Camp Hill, under the 24 metre level, the

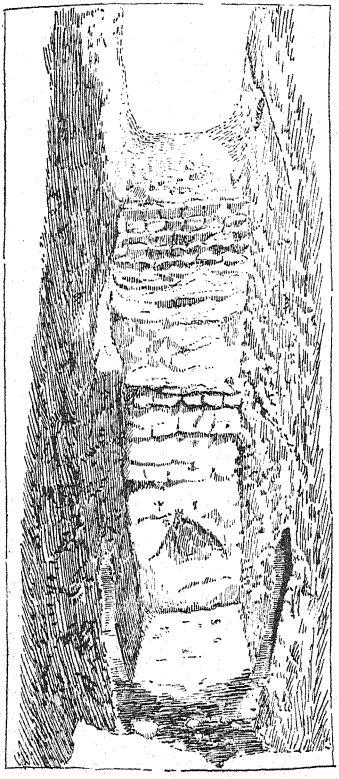


FIG. 56.—GREAT TRENCH AT CAMP HILL, LOOKING WEST. SHOWING WALL, M M, SECOND YEAR.

amount of superincumbent earth was so great that I conducted excavations along the walls of the building, largely by tunnels, as will be seen from the plan. There was on what seemed to be the extreme southwestern side of the building a very large fine wall (MM), shown in FIG. 56, built of the large blocks of mud brick spoken of above, burned red for the most part by the conflagration in which the building was destroyed. This, which I

judged to be the outer wall of the building, from its position, size and lack of doors, I traced, chiefly by tunnels, for the distance of 50 metres, finding a corner to the west, but none to the south, where the wall crossed a deep gully and was struck again on the next mound beyond.

Another passage way opening from the main court at S was closed by a door having a brick threshold and a stone door socket. At the other end of this corridor there had been a similar door and door socket. Charred beams of palm wood in this corridor showed the construction of the roof. Heaps of ashes, with pieces of tamarisk on the brick threshold, were the remains of doors and door-posts. The small chamber marked I, into which this corridor gave access, had apparently served as a granary, and was full of burned barley. It should be added that in the long corridor, O, we found at about the point marked by the letter O another deposit of burned barley, as well as the remains of burned palm logs from the roof.

From the chamber I a passage-way opened into a large room, which was divided into two parts by columns different from those in the large court, or in the smaller portico opening from it on the northwest (E; see also photograph, FIG. 57). There were two columns built in the wall, in the manner indicated in the plan, and two round columns set upon square bases, each of the bases consisting of four courses of bricks and resting on mud brick foundations. The circumference of these round columns was 3.95 m. Between the columns, from one side to the other, ran a low brick wall about as high as the top of the bases; the top of which, I suppose, marked the floor level of this room, so that, as in the court of columns, the square bases of the round columns were originally below the floor surface. This room was on the edge of a gully, toward the southeast, and was entirely washed away from the point where the lines stop.

The round brick construction marked H, in the series of rooms and corridors opening out of the court to the southwest, was a well, or more probably a water-cooler.

It will be seen on looking at the plan that at the southeast of the court first discovered there was a long low platform (TT), but no wall, as upon the other side. On this platform, which consisted of three courses of burned bricks resting on a substruc-

ture of mud brick, stood, as already stated, two columns of much larger size than any found elsewhere. The base of one of these columns was in place, as indicated at F. Traces of a second base I thought that I discovered at U. Remains of two round columns were found strewn here and there in the earth, from which it was clear that the diameter of the columns at the base must have been two metres, or more than double that of the columns of the court. This platform lay under

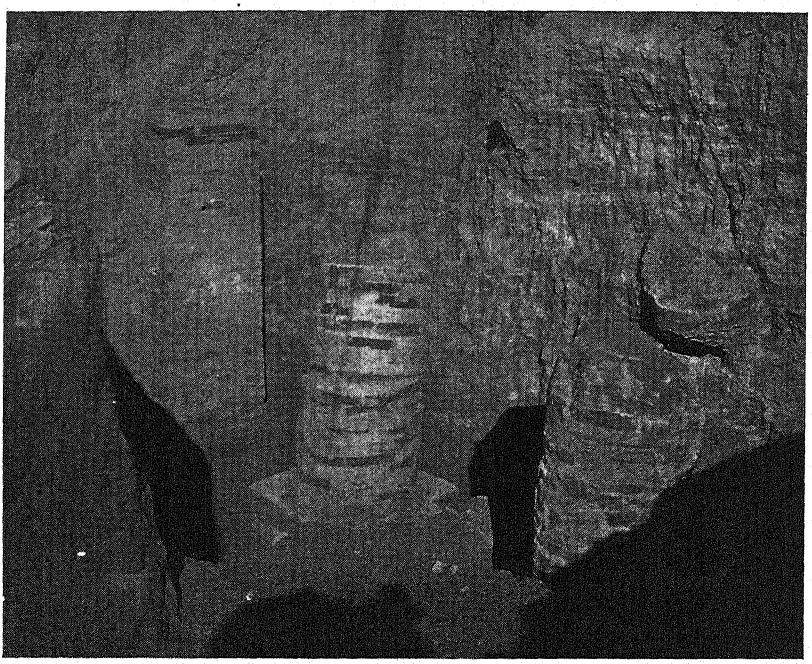


FIG. 57.—ROUND COLUMNS ON SQUARE BASES IN ROOM E.

a narrow mound separating the gully in which we found the court of columns from a much steeper gully to the southeast. Near one of these columns was a fragment of a wall of unburned brick with some courses of burned brick upon it, but what it meant or where it led to I do not know, since everything beyond this point was washed away, and it was impossible to obtain any clue for a reconstruction of the building on this side. The form of the platform, however, and the position and size of the two columns, suggest a gateway and an entrance to the court.

Whether the entrance was from another court of the building, or from the outside, it is impossible to determine.

Toward the northwest and the southwest the difficulties that met us were quite the opposite of those with which we had to contend at the northeast and southeast—namely, the fact of the rapid rise of the hill on those sides and the immense mass of earth



FIG. 58.—FRAGMENT OF ANCIENT STATUARY FOUND IN HOUSE OF LATER PERIOD.

under which everything was buried. The whole surface of the hill to the northwest and southwest was covered with a Jewish settlement, the houses of which were built of mud brick, and in almost every house we found one or more Jewish incantation bowls. In one of these houses on the hill to the southwest we found a curious pottery object, which we supposed to have be-

longed to a Jewish doctor or apothecary, and to have been intended rather for ornament or advertisement than for use. We concluded that it belonged to an apothecary or doctor, from the fact that there were in the same place several clay bottles sealed with bitumen, containing a mixture which we judged to be intended as medicine, although no chemical analysis has yet been made. Our conclusions may therefore be faulty on this point, but the discovery of Jewish bowls in the same house seems to settle the fact that it belonged to the Jewish colony. Kufic coins found in some of the houses of this settlement indicated that it was in existence as late as the VII century A. D. This Jewish town extended over a large part of the mounds to the southwest of the canal from Camp Hill (marked I on the plan of levels) to X, and is everywhere identifiable by the incantation bowls found in the houses, some of which are written in Syriac or even Arabic, although by far the larger part are in Jewish script. In one of the houses on I, close to the colonnade, was found a curious fragment, 21 centimetres in height, of a statue in black dioritic stone (photograph, FIG. 58). On one face, the obverse, was a ram in relief, held behind by a hand with very slender long fingers. The hand was relatively much larger than the ram, the middle fingers measuring .042 m., while the height of the ram over its hindquarters is only .11 m. On the edge of the fragment, in front of the ram, the breast and some of the drapery of a human figure can be seen. This is relatively smaller than the ram, and much smaller than the hand. On the reverse is the small of a human back, undraped, and corresponding in size rather to the hand than to either the breast or the ram. I suppose that this was found or dug up by the occupant of the house, somewhere, probably on the temple hill, which was at that time unoccupied or sparsely occupied, and seems to have served to some extent as a brick quarry for the later inhabitants of other parts of the mounds. It is one of the fragmentary evidences of the existence at Nippur, at some time, of stone statuary resembling that at Tello. It may be added that both on the temple hill and also at X, Mr. Haynes has now found objects bearing inscriptions of *patesis* of Tello, thus establishing on a still surer foundation the connection which I had conjectured from the fragments of statuary found at Nippur.

At the time of the Jewish occupation of the mounds the surface was already very uneven. The Jewish settlement occupied in general the higher portions of the surface of the mounds, which were thus still further increased in height, while the gullies were left unoccupied. Such partial settlements of the mounds outside of the temple hill, which is more uniform in its strata, and the consequent unevenness of stratification, have rendered the task of determining the dates of buildings and objects found at Nippur one of great difficulty. In one of the gullies on the northeast side of X (indicated by the letter E on the plan of levels) was found a

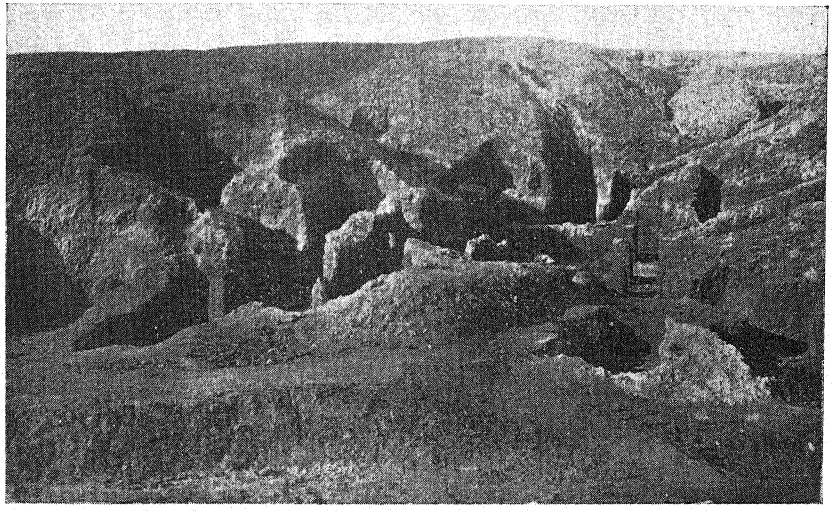


FIG. 59.—TRENCHES IN MOUND X, LOOKING WEST, SHOWING ROOMS OF HOUSE. CIRCA 2600 B. C.

series of rooms of unburned brick belonging to a building destroyed by fire (FIG. 59), in which were stored tablets of a very ancient period, several of them bearing the seal of Gamil-Sin of Ur, circa 2600 B. C. At the point marked F on the same mound was found a room used for the storage of unbaked tablets of the same period. These had been arranged on wooden shelves running around the walls, which, when the building was destroyed, fell to the ground with their precious freight. A brick well at this point was choked with earth, which we excavated down to the water level, recovering some hundreds of tablet fragments of the same period, which had fallen or been thrown in it. At C, at

a somewhat higher level, we found a fine deposit of tablets of the Cossaean period, circa 1300 B. C. At H Mr. Haynes has found remains of the Sargon period (3800 B. C.), almost at the surface. In the same part of the mounds, and often at but a slightly higher level, only on the summits instead of in the valleys, are found the houses of the Jewish town. These houses are in all cases of unburned brick, and resemble, or in fact seem to be identical, with the houses of ordinary town Arabs of the present day in Hillah, Shatra, Diwaniyeh and similar towns in that region. Not only do we find that the houses of the present day in neighboring towns are identical in structure with those built by the Jews at Nippur about 700 A. D., but the ordinary structures of the earlier periods back to the time of Sargon are of the same type and material; and it is only in exceptional cases that the shape of bricks or details of architecture give any clue to date. A similar homogeneity exists in the pottery and household utensils found in the houses and graves. Naturally, as a consequence of long experience, we are finding marks of date in objects which at first seemed undateable, and Mr. Haynes is now able to fix with considerable certainty the period of some things about which I could reach no conclusion. Doubtless, in course of time, as the result of systematic and patient work, we shall be able to assign periods to much of the pottery, bricks and the like, and ultimately to determine the period of objects found, even where they are not accompanied by inscriptions. At present, however, we are compelled to rely upon inscriptions for chronological purposes.

I have already stated that the discovery of Kufic coins of the first Caliphs in some of the Jewish houses on Camp Hill suggested the date of the VII century B. C. for the Jewish town on the mounds of Nippur. In another place not far away the houses with Kufic coins were built over the ruins of those containing Jewish bowls, showing that the Jewish era also antedated the Kufic. In the house in which the curious piece of composite pottery mentioned above was found Jewish bowls and Parthian coins occurred together. We can thus carry the Jewish occupation of that part of the mounds about and above the building containing the court of columns back to the beginning of the Christian

era or a little earlier, and find that there was a considerable Jewish settlement at Nippur during a period of 600 years or more.

But at the same time that a part of the hill was occupied by a Jewish town, burials were taking place in other parts, and especially over and about the court of columns; so that, as I have already stated, we at first mistook this portion of the mounds for the necropolis of Nippur. These graves were so confused in time that it is impossible to talk of strata. One and the same tomb contains burials of different periods. Coins and seals found here show that these burials occurred in the Sassanian, Parthian, and apparently also in the Persian and Babylonian periods. Out of this confusion it was impossible to obtain any clue to the date of the columnar structure, which I supposed for a long time to be a building of late date—not earlier in any event than the Persian period, and probably influenced in the use of columns by Greek art. It was the connection of the court of columns with the huge, ramifying structure lying under the central mass of the hill which gave me the means of dating the colonnade, by a cut through the highest part of the hill—the part which had the most and the best preserved strata.

As shown by the plan of levels (PLATE XXI) and plan of building (FIG. 54), a broad trench was carried directly through the highest part of mound I, which had been occupied by our camp in the first year. At the point C, between the 14 and the 16 metre level, the houses which we found at the surface—the lines of which were actually visible without excavation—were above the Jewish settlement; but at the summit of the mound, at the 24 metre level, this proved not to be the case. We excavated first a series of rooms, several of which were plastered and whitewashed. The floors of these rooms were about 3 metres below the surface. The discovery of incantation bowls, one of them written in Syriac characters, in several of the rooms of this series, together with Kufic coins, settled quite satisfactorily the date of this stratum as about 700 A. D. Below this we found Jewish bowls and Sassanian and Parthian coins. At a depth of 5 or 6 metres below the surface we came across a second series of buildings, above and in which were a number of burials in clay slipper-shaped coffins. These burials had evidently taken place after the houses in the

second stratum had fallen into decay. There was nothing in these coffins or in the houses beneath them to determine date.

Below this we found no buildings and no proper strata, but only a few objects of various sorts loose in the earth. At 10 metres below the surface I felt confident that we were well into the Babylonian period, but we did not obtain any objects by means of which date could be proved beyond question until we reached a depth of 11 metres, at which depth we were on the level of the court of columns. Here we discovered quite close to the great wall MM, but on the outside of it, in a small tunnel run out from the wide trench, a curious set of pottery stored in a large urn (FIG. 60). There were three small boxes, the largest 10 cm·

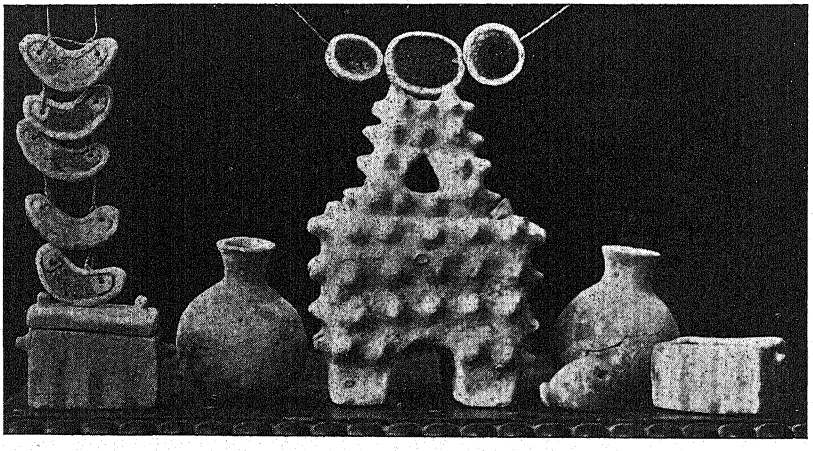


FIG. 60.—POTTERY OF COSSAEAN PERIOD.

square, two of them with covers, and three small vases, all quite peculiar in pattern, colored green and yellow in stripes. The largest box was ornamented with knobs. Along with these were more than a hundred small discs and crescents, mostly in black and white, pierced for purposes of suspension. This pottery did not seem to be connected with a burial, nor were there any contents in the boxes or vases excepting the earth which had fallen into them. There were no traces of house walls at this point.

While I was still uncertain as to the date of this pottery, or in fact of anything about this perplexing hill, in a small tunnel from the great trench on the opposite or southeastern side, at the depth of 11,20 metres, we discovered 245 baked tablets, practically en-

tire. These lay together in the earth, and the clay about them showed marks of burning. There was no trace of a wall immediately about them. Further excavation added about 53 tablets found in the adjoining earth, together with a very large number of fragments, all found within a radius of a few feet and apparently loose in the earth. Scarcely had we made this discovery, however, and secured the tablets, when the trench caved in, and we were unable to remove the superincumbent earth and reach our old level again that year.

In the first year of his work Mr. Haynes undertook a further

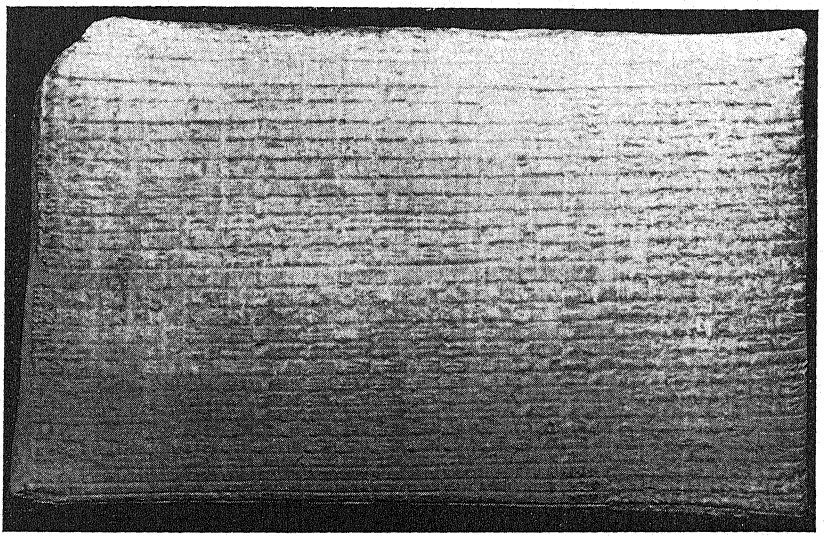


FIG. 61.—ACCOUNT TABLET OF NAZI-MARRUTTASH, A COSSAEAN KING OF BABYLON, 1284–1258 B. C. ACTUAL LENGTH ABOUT 20 CM.

excavation of this site, and had the good fortune to discover in the same locality a large number of tablets of the same type. I am unable to identify the precise spot at which he discovered his tablets. Mine were discovered at the spot marked B, on hill 1, (PLATE XXI) at which point, it will be observed, a tunnel is indicated in the great trench. On examination these tablets proved to be, without exception, records of the Cossaean dynasty. The large tablet represented in the photograph (FIG. 61) bears the name of Nazi-Marruttash, and is a record of temple income, as are all the other tablets of this find. They are archives of the Cossaean dynasty,

dealing with the receipts of the great temple of Bel. The date of Nazi-Marruttash is 1284 to 1258 B. C.

It will be observed that these tablets were not actually found in the large building containing the court of columns, but, as I think will have been made clear by my account of the excavations, they enable us to date accurately the stratum to which that building belongs. It was in existence at the time of the supremacy of the Cossaean dynasty, and presumably, inasmuch as we found that some of the kings of that dynasty, like Kurigalzu II (1306–1284) and Kadashman-Turgu (1257–1241), son of Nazi-Marruttash, were great builders—we may not unfairly presume that this building was erected by the kings of that dynasty somewhere, let us say, between 1450 and 1250 B. C.

The endeavor to secure dates on the other side, that is before the erection of this building, by excavating beneath it, was not rewarded with success. The great trench through the centre of the hill was carried to the depth of 13 metres at the point where it strikes the great wall MM on the southeastern side of the wall (FIG. 54). At this depth we found other walls of unbaked brick belonging to buildings of an earlier era, and followed them for a little distance with tunnels, but without result. A long trench was projected across the entire hill to give us a section of the same, as will be seen by Mr. Field's plan (FIG. 51). Beneath the court of columns this latter trench descended (FIG. 53) to the depth of 13 metres, at which point we were exactly 24 metres below the 24 metre level, but nothing was discovered which could throw any light on the question of dates. Here and there we found pottery and household utensils, but always of the same common character which might have belonged to any period from Sargon down to the present time. At the depth of 13 metres we came upon a wall of unbaked brick (shown at bottom of trench in FIG. 53) equally lacking in characteristic features, and at this point we were obliged to abandon the shaft for fear of a cave-in.

I have given in some detail the plans of this building, as far as excavated, and an account of the excavations, because a peculiar interest attaches to the use of the round column. Columns of a different form, and very much more elaborate in some particulars, have been found by M. de Sarzec at Tello. I had the good for-

tune to discover, at a mound which will not be found on any map of the country with which I am familiar—Abu-Adham—a few hours distance from Tello, on the other side of the Shatt-el-Haï, a building with brick columns, precisely like those found in the court of columns at Nippur. Abu-Adham is one of a very remarkable group of mounds, lying unfortunately in the midst of sandhills, between Hammam and Umm-el-Ajarib (Mother of Scorpions), a little to the northward of the direct line between these two places.

The most important mounds of this group are those of Yokha, or more properly Jokha, which evidently represent a large and important city. The mounds of Yokha are extensive, but low lying, like those of Tello. Stone fragments are numerous, and one can pick up on the surface quantities of pieces of vases and other similar objects of stone of various sorts extremely well wrought. Such objects, as far as my experience goes, are an evidence of an antiquity antedating 2000 B. C., and their appearance on the surface is an indication that these mounds were, comparatively at least, unoccupied during the succeeding ages. Bricks found in a structure at the surface of the mounds were of decidedly archaic appearance, flat on one side and convex on the other, with thumb grooves in the convex surface, like those found beneath the ziggurat at Nippur in the pre-Sargonic stratum. Loftus, while exploring in this neighborhood, found at Yokha a small stone statue of the Tello school of art, dating from 3000 B. C. (*Travels and Researches in Chaldaea and Susiana*, p. 116, note). The University of Pennsylvania possesses a door-socket from Yokha bearing the inscription: "Gamil Sin, the mighty king, king of Ur, king of the four quarters of the earth, has built for Marduk his favorite temple." This gives us a date of 2600 B. C., and shows us that Marduk was the special god of the city; but it does not give us the date of the city. Tablets from Yokha suggest the same general date by their appearance and the character of the script, but are equally unsatisfactory for the purpose of naming the city.

About a quarter of an hour from Yokha, to the southwest, lies a small mound called Ferwa, the surface remains on which are of the same general character as those on Yokha. Beyond this again are two smaller mounds, belonging apparently to the same period, on one of which, Abu Adham, I found the building men-

tioned above, containing a court of columns of a still more interesting type architecturally than those found at Nippur (FIG. 62). There were visible two rooms, the larger 30x18 m., and the smaller, or inner room, 13x15.5, the walls of which without were relieved by half columns in brick. In the inner room were 18 round columns of brick, each about a metre in diameter, set upon square bases, each side of which measured 1.5 m. (I am not sure that the two center columns were not missing.) These columns were similar in construction to those at Nippur. From the evi-

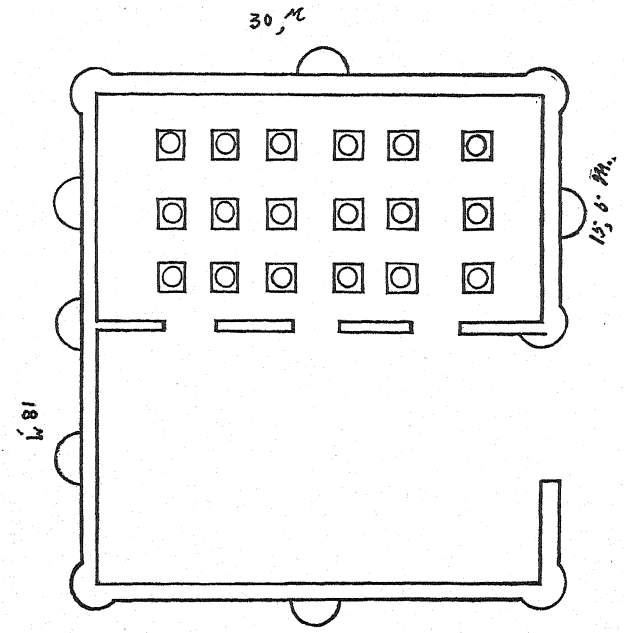


FIG. 62.—PLAN OF BRICK BUILDING WITH COLUMNS, AT ABU ADHAM.

dences of the surrounding mounds, I should judge that this building belonged to the middle of the third millennium B. C.

Abu Adham, as already indicated, lies in the sphere of influence of Tello. Less than an hour away toward the Shatt-el-Haï, on the direct road to Tello, lies the burial mound or necropolis of Umm-el-Ajarib. This latter mound was visited by de Sarzec (it is called Moulagareb in his report), who found there a head of a type similar to those found at Tello. My men found at the same place a small marble statue of Tello type, much defaced. At Hammam, also, two hours or so from Yokha toward the north-

east, Loftus found a badly broken and battered statue of Gudea. I suspect that this had been brought originally from Yokha or Umm-el-Ajarib, but it is at least evidence of the general period of the ruins of that section.

It is worthy of notice, moreover, that Yokha, Ferwa and Abu Adham lie on the course of the ancient Shatt-en-Nil, which emptied into the Euphrates by Warka or Erech, some three or four hours lower down; and that in the mound called Wuswas, at this latter city, Loftus found half columns of brick, seven shafts together, used to relieve a façade. He places the date of the building in which these half columns were found at not later than 1500 B. C. The use of columns and half columns of brick would seem to have been by no means uncommon in southern Babylonia, wherever, at least, the influences of the artists of Tello was felt, from the middle of the third millennium or earlier until about the thirteenth century B. C.

Another building of a quite different character and much later date was discovered by Mr. Haynes at Nippur last year, on the mound designated VI on the general plan of Nippur, published in the January number of the JOURNAL, between the Temple of Bel and the Shatt-en-Nil, to the southwest of the former. In a letter dated Sept. 22d, 1894, Mr. Haynes writes as follows: "Wednesday the various gangs, with the single exception of the small party detailed for special service on the ziggurat, were placed at different points on Mound VI, with results of moderate interest to the antiquarian. About midway between the temple of Bel and the Shatt-en-Nil, and slightly to the southward of west from the former, has been excavated a building of doubtful origin, built of burned bricks and lime mortar, in the style of the *ziarets* or holy tombs which abound in many countries of the East and South, notably in Turkey, Persia and India, and in the countries of Northern Africa.

"The enclosed sheet (FIGS. 63 and 64) shows a plan and section of this building, which measures thirty-two feet and three inches in length and breadth, and stands parallel to the great Temple of Bel. Like the famous temple, its northeastern face varies twelve degrees from the northwest and southeast line. In each side is an opening seven feet and ten inches wide. The building was covered with a dome of bricks in lime mortar, and would appear to

have been conspicuous for its symmetry and proportions. Its walls to-day stand seven feet and eight inches high and six feet and nine inches in thickness, being well built and sufficiently strong to resist the lateral thrust of the dome. The walls are

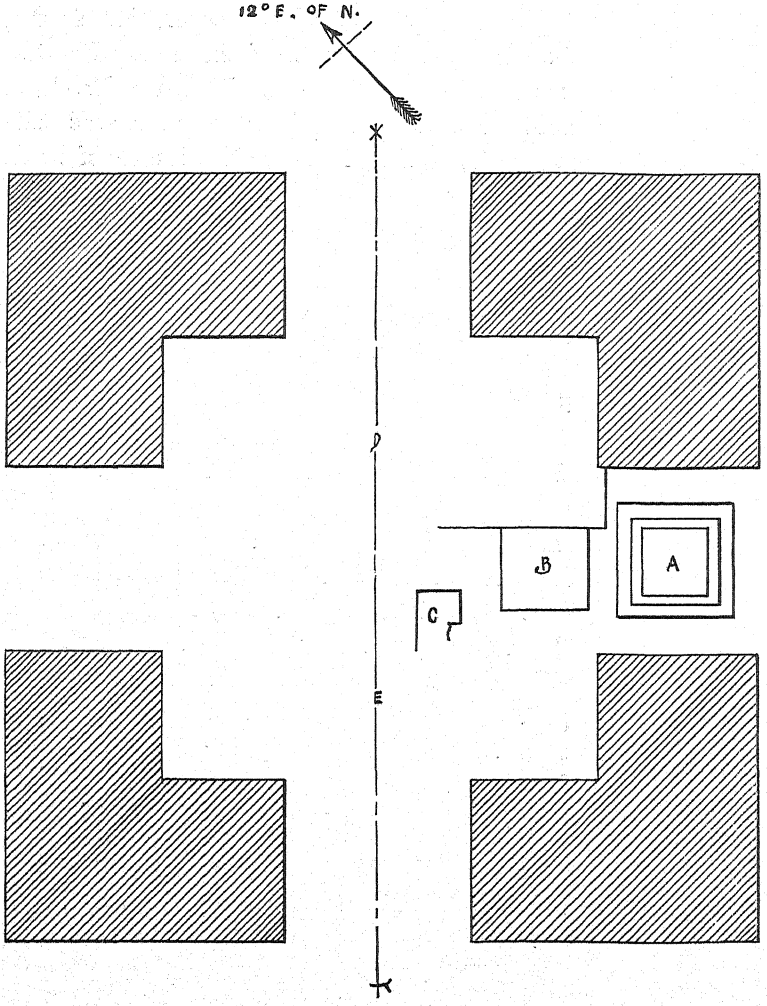


FIG. 63.—PLAN OF BUILDING OF BURNED BRICKS ON MOUND VI AT NIPPUR. SCALE .01083 M. = 1 M.

built of soft yellow bricks measuring twelve and one-half inches square, with a varying thickness of two and three-quarter inches to a maximum of three inches. In color, texture and mould the

quality of these bricks appears to be identical with that of the soft porous bricks built into the facing of the great cruciform projections during the last restoration of the temple of Bel.

"In the southeastern opening of the building is an altar marked A on the "Plan and Section" of the accompanying sheet (FIGS. 63 and 64). The altar consists of three stages, each stage except the highest being composed of two layers of bricks measuring six inches. The altar stands upon a raised platform, and its uppermost stage has evidently lost a course of bricks, making the original height of the altar two feet, while across its top it measures three feet. The bricks composing the altar were laid in lime mortar, and its sides were smoothly plastered with mortar of the same kind. Upon and around the altar, to a considerable distance from it, were wood ashes six inches in depth, an accumulation that could not have been accounted for by an occasional fire. Within the building, and exactly in front of the altar, is a raised

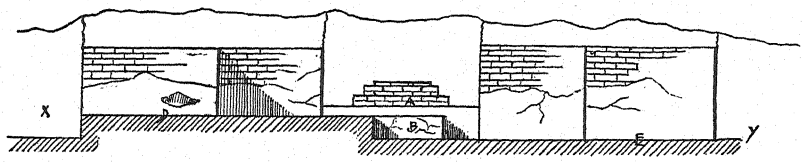


FIG. 64.—SECTION OF BUILDING OF BURNED BRICK ON MOUND VI AT NIPPUR, AT XY.

block of crude bricks, shown at B in both 'Plan and Section' of FIGS. 63 and 64. The sides of this block were plastered in the same manner as the sides of the altar itself. It was distant from the altar about one foot. Possibly the officiating priest may have stood here while offering the sacrifices. There is a difference of one foot in the level of the brick pavement shown by the line X Y. There is no reason apparent to us why the pavement should have been made in different levels, unless it possibly was to elevate the altar and priest above the people in the lower part of the room.

"Looking at the plan of the building, you may judge it to have been an Arab tomb or *ziaret*, and therefore dismiss the subject from further consideration. At one stage in the progress of its excavation the same suggestion came to us in the field, but as the work proceeded this hypothesis appeared no longer tenable, and to-day we feel certain that this building is much older than the

Mohammedan era, though by whom it was built we have no certain clue. The bricks used in its construction were new bricks; at least they had not been previously used in other buildings, and as stated above, they are identical in dimensions, color and texture with the soft yellow bricks used in the upper courses of the skin or facing of the last reconstruction of the temple in the cruciform style, which would at least justify the hypothesis that the newly-discovered building belongs to the same era as the reconstruction of the temple. Besides, the orientation of the two buildings is exactly the same. The altar proves the building to

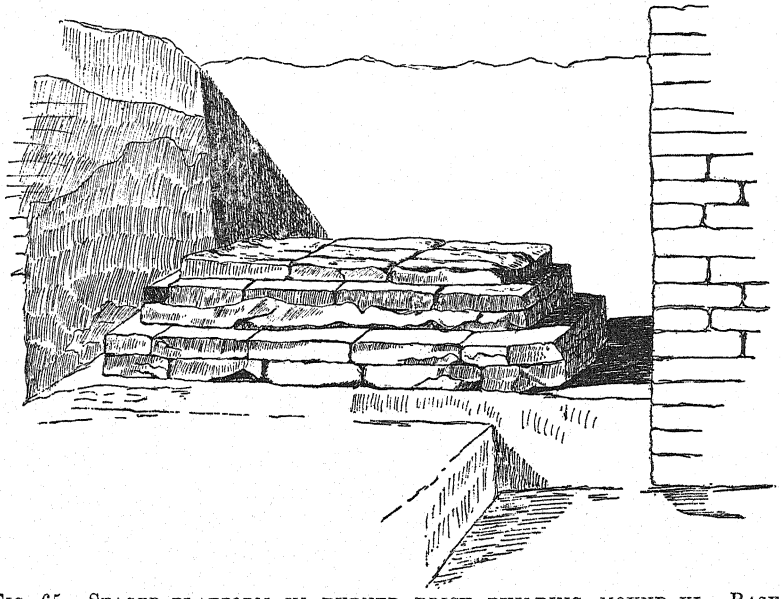


FIG. 65.—STAGED PLATFORM IN BURNED BRICK BUILDING, MOUND VI. BASE 4 FT. 10 IN. SQUARE; HEIGHT 1 FT. 3 IN.

have been older than the Mohammedan era. There are no inscriptions to determine its origin or purpose. We can only guess at the former and reason about the latter. Possibly the situation of the altar, in the opening toward the sun at its zenith, may be significant of its use. Might it not have been an altar and temple, or more properly a shrine, of the fireworshippers? The domed building might naturally have been adopted from Persia; and that domes were used in ancient times is clearly shown by a bas-relief on the monuments at Nineveh. From whatsoever country this type of building came, it is certain that the Arab tomb

and *ziaret* are its lineal descendants, and by no means a creation of the Saracens.

"Nearly two months ago an Arab of the desert brought to me a model in limestone of a three-staged altar, which in general plan bears a striking resemblance to the altar described above. The enclosed sheet (FIGS. 65 and 66) gives a sketch of both these altars. FIG. 66 is the little altar of massive limestone. FIG. 65 is a sketch of the altar in the building described in the foregoing pages of this letter. It has lost its upper course of brick. The altar (FIG. 66), rudely made and somewhat irregular in form, has a circular depression in its top, thus creating a raised rim around its edge."

Mr. Haynes is inclined to think, as will be observed, that this building is of the same date as the cruciform structure built about the ziggurat of the Temple of Bel at Nippur (cf. January number

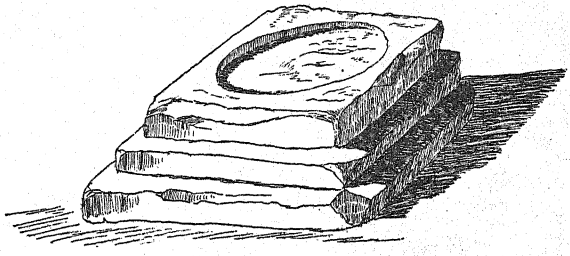


FIG. 66.—STAGED OBJECT OF STONE. BASE 4 IN. SQUARE; HEIGHT 2 IN.

of the JOURNAL). I have already pointed out the uncertainty of the date of the latter, but suggested for it a late Babylonian origin, which would seem to me not unsuitable for this building also.

It must be said, however, that a later date is also possible. Both the Parthians and Sassanians played an important role in this country at a later date, and both of them erected buildings of some importance. Loftus discovered at Warka very interesting remains of Parthian architecture, characterized especially by plaster mouldings and decorations. He identified them as Parthian and not Sassanian by the coins found with them. I found several mouldings of the same sort at Nippur, one of them in the vicinity of the square building described above, I believe, and ascribed them to the Parthian period on the ground of Loftus' discoveries. Zibliyeh, three hours to the north of Nippur, I identified as the ruins of a tower of the same period, largely owing to

the discovery of similar architectural mouldings. As this mound, which is a very prominent landmark, had been described by some travelers as the remains of an ancient Babylonian ziggurat, I conducted soundings there in the spring of 1890. It proved to be no ziggurat, but a square tower of unbaked brick, within and beneath which was a vaulted substructure of baked brick.

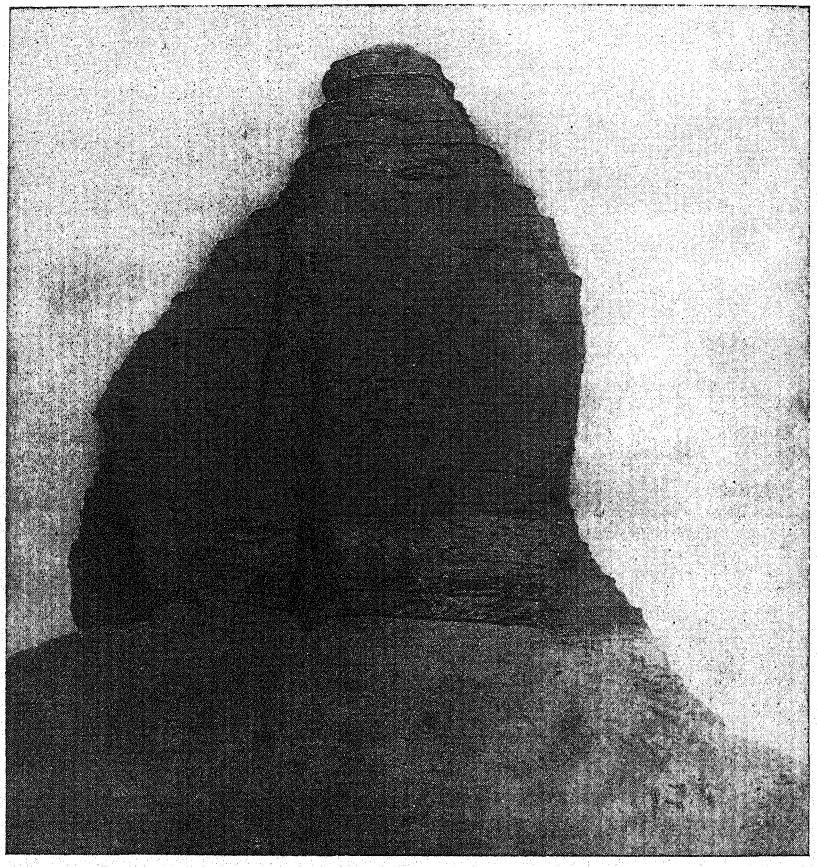


FIG. 67.—RUINS OF TOWER AT AKER KUF.

Above this latter, and surrounded by massive walls of unbaked brick, I found the remains of brick walls and plaster mouldings somewhat like those found by Loftus at Warka. The unbaked bricks of which the outer walls were composed were of a poor make, and were laid in reeds, the projecting ends of which, waving in the wind, may have given the ruin its modern name of

Zibliyeh. Low, long mounds, radiating in every direction, suggested that, like Akerkuf (FIG. 67), near Baghdad, it was a tower built at a canal centre for the regulation or defence of the canal system. But while Aker Kuf seems to have been of Cossaean origin, Zibliyeh belonged to the Parthian or possibly even Sassanian period.

An exploration of the tower of Hammam, two days' journey south of Nippur, led me to reach a similar conclusion in regard to this ruin. Dr. Ward, in the report of the Wolfe expedition, described it as a ziggurat, concurring in what appears to have been the opinion of Loftus. The latter, as already stated,

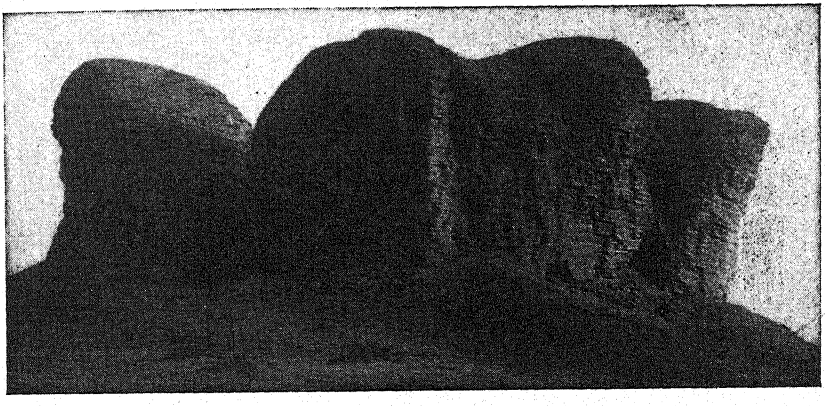


FIG. 68.—RUINS OF HAMMAM FROM THE NORTH. PHOTOGRAPH OF WOLFE EXPEDITION.

found on the surface near this ruin a broken and defaced statue of Gudea, *patesi* of Tello, from which he inferred a high antiquity for the ruins. These latter he describes as quite extensive. I found a considerable number of low mounds radiating from a common centre, in or near which stood a tower of unbaked brick (FIG. 68) about fifty feet high and seventy-eight feet square, according to Loftus; nearer forty by seventy according to me. Sounding the low mounds, I found that they contained no remains, and were very shallow. The tower itself proved to be similar to that of Zibliyeh, described above. The corners were in general toward the cardinal points, but so irregularly orientated that the northern corner pointed 20° east of north. I concluded

that this also was no ziggurat, but a water tower at a canal centre, perhaps of Parthian origin.

The name Hammam (bath) is presumably late, and like that of the reedy, basket-like Zibliyeh, may have been given by the Arabs, owing to the bath-house-like appearance of the place. Or it may have been a reminiscence of the original object of the place as a water-tower, supposing that to have been its object. It is, however, a very common name for ruins of all descriptions throughout the whole Turkish empire.

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St. Michael's Church,
New York.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.

GRAVE-MONUMENTS FROM ATHENS.

I.

In digging for the foundations of the large house which Mr. C. Merlin, the well-known artist and photographer of Athens, is building at the corner of Academy and Kephissia Streets, the workmen came upon considerable remains of an ancient cemetery. At my suggestion Mr. Merlin made over to the American School the right of publishing these discoveries, and afterwards generously presented to the School three reliefs and one other inscribed stone, together with some smaller fragments. The finds were made in the autumn of 1894. Only a part of them came under my observation at the time; hence the description of the graves and their location rests in part upon the accounts of Mr. Merlin and his workmen.

The description will be made clearer by Fig. 69, which exhibits an outline of the plan of the house, and its situation with relation to the adjacent streets. All the graves lay two or three meters below the present level of Academy Street, and this is somewhat lower than Kephissia Street. Within the triangle ABC were several graves with sides and tops of rough-dressed marble slabs. Near A were two of this type, side by side, one of which I saw opened. This contained skulls and other bones, more or less broken, which indicated at least five bodies, one of them that of an infant. With these bones was a jar, of poor and undecorated pottery, about 15 cm. high and of like diameter, containing only earth and some fragments of plain glass bottles of common Roman shape. The eastern end of this tomb was walled up with

brick, and a single slab of marble formed the partition between it and the companion tomb. A little west of A was found a sarcophagus of Pentelic marble. The only decoration on the body of the sarcophagus was a simple moulding on the front and ends; the lid was roof-shaped, the gable as shown in Fig. 70, the roof proper covered with the scale-like tile pattern illustrated in Ἐφ. Ἀρχ., 1890, Πίν. 9, a sarcophagus from Patras, No. 1186 in

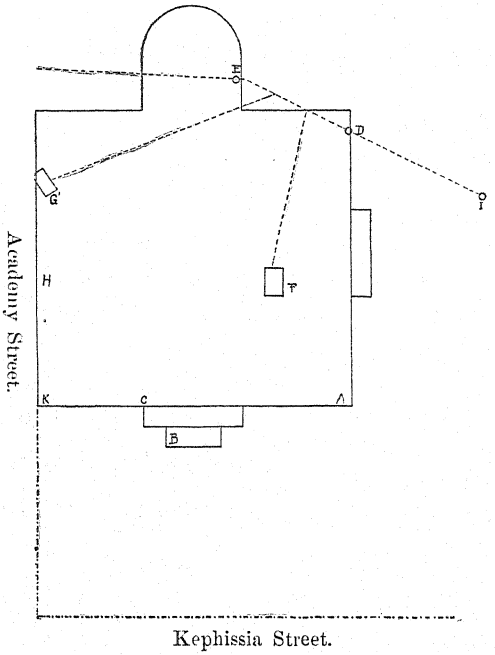


FIG. 69.—PLAN OF MR. MERLIN'S HOUSE.

the National Museum. (It is worth noting that this No. 1186 has on the back essentially the same design as the gable here illustrated; and that the same roof-pattern appears on two or three of the sarcophagi from Sidon, now in the New Museum in Constantinople, as well as on several other sarcophagi in the National Museum in Athens.) The top had been broken open, but the despoilers had overlooked a plain gold ring which was still within the sarcophagus. Near C was a large *cippus* of Hymettus marble, inclined perhaps 40 degrees from the vertical, in such a way that the top, with the inscription, had to be broken to

make room for the wall—unless, indeed, one was willing to spend considerable labor to dig it out and remove it entire. When I saw it first the fragments were lying near, and the inscription is given below as No. 1. Between A and C was a large Roman *stele*, found lying on one side; from its weight there is no likelihood that it had been moved far. This is described more fully by Mr. Heermance in the following article. Within the space ADHK the trenches for the side walls and for the numerous cross walls of the house revealed twenty or thirty graves of poor construction, enclosed in tiles, nearly all of the shape of a continuous pointed vault springing from a horizontal base. In two or

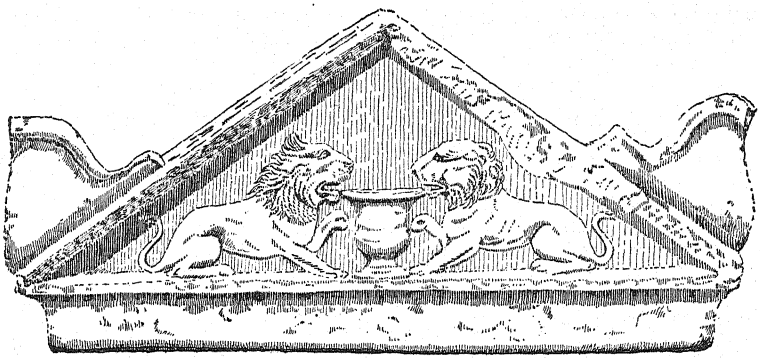


FIG. 70.—GABLE OF SARCOPHAGUS.

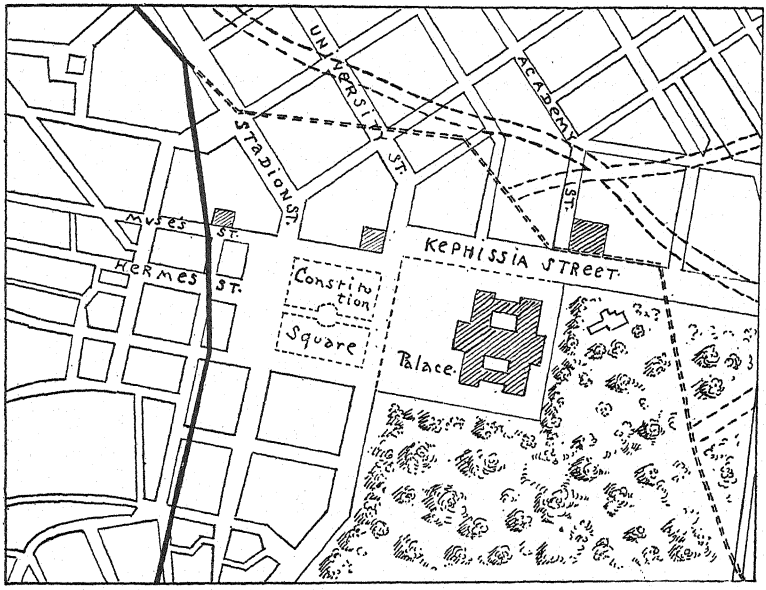
three the enclosing tiles made a coffin of cylindrical form. These poorer graves contained considerable remains of bones but no decorated pottery, and nothing to indicate a period earlier than late Roman. A few plain glass bottles of common Roman form, with many fragments of such bottles, and a few plain jars were all. It should be noted that nearly all the graves found were oriented in the general direction AB, that is, about east and west. North of the line DH none were found.

E, D and I are wells, apparently of Roman date, still containing an abundance of water. (It may be mentioned that in digging for the foundations of two other houses of Mr. Merlin, on the corner of Kephissia and Sekeri Streets, and on the corner of Sekeri and Kanari Streets, ancient wells were likewise found, which still furnish water.) These three wells were connected with each other, and also with two small reservoirs, F and G, by

aqueducts, as indicated in Fig. 69 by dotted lines. From E an aqueduct was followed in a westerly direction to the street line. In the walls of F and G were found reliefs and inscriptions described below under Nos. 2, 3 and 4, together with fragments of one or more richly carved sarcophagi of Pentelic marble. In the well D was a terra-cotta lamp of graceful form and decoration, with four or five small drinking-cups of reddish clay, undecorated and unvarnished, of the general shape 222 in the Berlin vase catalogue.

The location of these finds has been given in detail because of their bearing upon a question of Athenian topography. It is clear we have here the northern limit, at this point, of the cemetery along the northern side of an important road leading from one of the eastern gates of the city. There can be no doubt that the richer tombs were nearest to this road, the poorer ones farther away. Besides, if the road ran immediately to the north of the line DH, some trace of it would have been brought to light, and another line of tombs would certainly have been revealed on the other side of the street; for the apse-like projection on the northern side of the house extends at least 12 m. beyond the limit of the graves found. The road must therefore have run to the south of B, and presumably several meters to the south, to allow for the probable width of the fringe of richer tombs. The line A–K is 14 m., the point B 9.25 m. from the present line of Kephissia Street. The ancient road is thus located, at this point, very near the line of the modern road. And if one observes the nature of the ground in this region, as shown by the *Niveaulinien* on Kaupert's map, it will be seen that this is about the most natural line of communication with the country east and northeast of Athens, if one considers grade as well as direction. The sketch-map (Fig. 71) will serve to indicate Curtius' conjectural location of roads and wall in this vicinity and the amount of correction which these finds enable us to make. The lot on which the graves were found is shaded, as are two other sites where similar remains, probably belonging to the same cemetery, had previously been excavated. That in Muses Street is a house which belonged to Dr. Schliemann, who reported on the discoveries in the Athenian *Mittheilungen*, XIII (1888), pp. 207 ff.; the topographical

conclusions were drawn by Doerpfeld in the same journal and volume, pp. 231 ff., and the probable course of the city wall in Fig. 71 is taken from the latter article. The site at the corner of Constitution Square and University Street is that of the Hotel *Grande Bretagne*, beneath which and to the north of which were found graves of Hellenic dates.[1] In the upper part of Stadion Street, also, excavations for a sewer brought to light numerous tombs of



Probable course of City wall.
Curtius' location of Hadrian's wall.
Curtius' location of ancient roads.

FIG. 71.—MAP SHOWING SITE OF THE GRAVES.

the fifth and fourth centuries B. C.,[2] which apparently formed part of the same cemetery; although it is true that these last may belong rather to a street skirting the wall at this point. Only in the case of Mr. Merlin's excavations have we the data for determining certainly on which side of the graves the ancient road ran; but the probability seems to be that the gate in the Themistoclean wall lay a little south of the ὁδὸς Μουσῶν, and that the road traversed the Constitution Square and passed between Mr.

[1] C. WACHSMUTH, *Stadt Athen*, I, p. 338.
[2] Δελτ. Ἀρχ., 1889, p. 125.

Merlin's new house and the Royal Garden opposite. The name of the gate is perhaps not yet determined beyond question; but Doerpfeld's identification of it with the gate of Diochares,[3] in connection with his location of the Eridanus and Lyceum, has more in its favor than the older identification with the Diomeian gate. As regards the wall of Hadrian, I can add nothing certain, except that the gate cannot have stood where Curtius' conjecture placed it. This follows naturally from what is said above about the road. The inscriptions and reliefs discovered cannot be dated precisely, and may have been all earlier than Hadrian's time, so that it is possible that his wall was built between B and the present street; a deep trench from B to the street would settle the question.

The following monuments call for fuller notice.

1. Large *cippus* of bluish marble found at C on Fig. 69, inclined some 40 degrees from the vertical, the base never fully excavated. The top, with the inscription, was broken when I saw it, but the fragments were near by and all the letters clearly legible, as follows:

ΚΛΑΥΔΙΟϹ	Κλαύδιος
ΡΗϹΙΜΑΧΟϹ	Ῥησίμαχος
ΕΞΟΙΟΥ	ἐξ Οἴου

The name Ῥησίμαχος is unknown and strange; one is tempted to read Ῥηξίμαχος, although Ϲ was perfectly clear.

2. Lower part of a *stele* of Pentelic marble, of the form shown in Fig. 72, found in the wall of one of the reservoirs, now in the Library of the American School at Athens. The moulding is broken off on the back, right side, and most of the front, to make it more serviceable as building material; how much is wanting at the top is uncertain. The height preserved is 14.5 cm.; the width of the shaft, without the moulding at

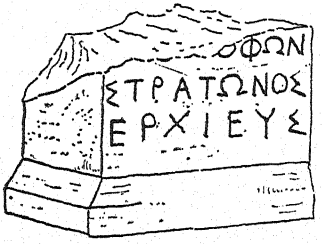


FIG. 72.—FRAGMENT OF INSCRIBED STELE.

[3] Der Eridanos, *Ath. Mitth.*, XIII (1888), pp. 211 ff.

the base, 21.5 cm.; the depth of the shaft 17 cm. The inscription, in good letters about 2 cm. high, is of the latter part of the fourth century. It reads:

ΟΦΩΝ	[Στρατ]οφῶν
ϹΤΡΑΤΩΝΟϹ	Στράτωνος
ΕΡΧΙΕΥϹ	Ἐρχιεύς

The lower part of a perpendicular *hasta* over the first Τ of the second line, with a slight trace of the lower end of a similar *hasta* over the Ρ, points to [ϹΤΡΑΤ]ΟΦΩΝ as the probable reading of the first line. I have found no reference to a Στρατοφῶν of the deme of Erchia. The shape of the monument is also new to me; and of the archæologists who have seen it, no one has been able to point out an analogy to it. The bottom has its ancient surface, is nearly as smooth as the sides, and contains no trace of having been fastened upon a base. It must, therefore, have simply stood upon another stone with a fairly smooth surface—perhaps on a slab covering the grave and slightly above the level of the ground—and can hardly have been more than 40 or 50 cm. high. Possibly a relief or a painting adorned the front above the inscription. That it was a grave-monument rather than the base of a dedicatory offering is rendered probable by the circumstances of its discovery, in the neighborhood of a cemetery and among grave-monuments.

3. *Stele* of Pentelic marble with relief (Fig. 73), found built into the wall of the same reservoir with the preceding, and now in the Library of the American School. Height, 64 cm.; breadth, 25 cm.; thickness, 10 cm. The field of the relief is 38 cm. by 17 cm., and about 2 cm. deep; the face and right hand of the figure project 2 or 3 mm. beyond the plane of the enclosing frame. The lower left-hand portion of the *stele* has been in some way cut smoothly away, so that the lower left-hand corner retires 1 cm. from the general plane. This was no doubt hidden in a socket or in the ground. The relief represents a woman in middle life, standing *en face*, the weight upon the left leg, clad in simple *chiton* and *himation*, both arms and the left hand wrapped in the *himation*, the right hand raised and laid against the left breast. The nose has suffered, and indeed the entire surface of the relief,

which is the work of an ordinary artisan. The inscription on the architrave above the figure, in letters 1 cm. high in the upper line, distinctly less in the crowded lower line, still retaining traces of red, reads:



FIG. 73.—STELE OF STATIA.

CTATIANΘAΛΛOYCAN
ΦIΛANΔPIACTPYΦWNANE
CTHCEN

Στατίαν θάλλουσαν | φιλανδρίας Τρύφων ἀνέ | στησεν.

The letters in general are rather broad, particularly H. Such a genitive of cause as φιλανδρίας, without preposition, is unusual with a verb like ἀνέστησεν. θάλλουσαν seems to mean *in the bloom of life.*



FIG. 74.—STELE OF A BOY.

4. *Stele* of Pentelic marble with relief (Fig. 74), found in the wall of the same reservoir with the preceding, in three pieces, with another crack near the bottom, reaching not quite across.

The total height is 64 cm.; breadth, 37–39 cm.; thickness, 7–9 cm.; the field of the relief is 41 cm. by 27 cm., concave, varying in depth from 1 cm. at the edge to 2.5 cm. The relief is of very poor work, and represents a naked boy standing *en face*, the left hand at the side, holding a ball, the right hand holding a bird against the breast. The inscription consists of four hexameters, irregularly cut, in letters ranging from 0.5 to 1 cm. high; the first three verses above the relief, the fourth verse broken into five lines and placed at the left of the child's head. Endeavoring to get the thirty-eight letters of line two and the forty-one letters of line three into the same space as the thirty-two letters of line one, the stone-cutter so far miscalculated as exactly to reverse the relation of lengths; line three comes out shortest as regards space, and line two the next shortest. The letters are of about the same style as in the preceding, and read:

ΤΙCΠΕΥCACΑΙΔΗΤΟΝΗΤΤΙΟΝΗΡΠΑCΑCΗΜΩΝ
ΤΟΝΓΛΥΚΕΡΟΝΤΕCΟΛΩΝΑΚΑΤΗΓΑΓΕCΟΥΚΕΛΕΗCΑC
ΤΟΒΡΕΦΟCΕΞΜΗΝΩΝΤΟΚΑΛΟΝΒΡΕΦΟCΩCΠΙΚΡΟΝΑΛΓΟC
ΔΕΙΛΑΙΟΙC
ΓΟΝΕΕCCΙ
ΠΕΠΡΩΜ
ΕΝΗΕΞΕ
ΤΕΛΕCCΑC

Τί σπεύσας, Ἄιδη, τὸν ἤπιον ἥρπασας ἡμῶν
τὸν γλυκερόν τε Σόλωνα; κατήγαγες οὐκ ἐλεήσας
τὸ βρέφος ἐξ μηνῶν, τὸ καλὸν βρέφος. ὡς πικρὸν ἄλγος
δειλαίοις γονέεσσι, Πεπρωμένη, ἐξετέλεσσας.

There is a metrical irregularity in the first line, where *τόν* has the place of a long syllable, and *ἤπιον* is an unusual epithet for a six months' babe. But among the metrical inscriptions discussed by Allen are[4] three hexameters with a short syllable for a long one in the same place in the line, one being from Athens of the fourth century B. C., one from Thessaly, and one from Metapontum; and *ἤπιος* in the sense of *gentle* is not so rare as to be impossible here. The simple pathos of the lines gives them a literary value that is unusual in grave inscriptions.

THOMAS DWIGHT GOODELL.

Athens, April, 1895.

[4] Papers of the American School, vol. IV, p. 78.

NOTE.—In the first line of No. 4 my colleague, Professor Seymour, would read τὸν [ν]ήπιον, assuming a stone-cutter's error. This reading restores the meter and is probably right, though comparatively frigid in sentiment. Professor Allen suggests making τε connect ἥρπασας and κατήγαγες, and removing the mark of interrogation to line 3, as follows:—

Τί σπεύσας, Ἀίδη, τὸν [ν]ήπιον ἥρπασας ἡμῶν,
τὸν γλυκερόν τε Σόλωνα κατήγαγες οὐκ ἐλεήσας,
τὸ βρέφος ἐξ μηνῶν, τὸ καλὸν βρέφος; ὡς πικρὸν ἄλγος
δειλαίοις γονέεσσι, Πεπρωμένη, ἐξετέλεσσας.

T. D. G.

Yale University, December, 1895.

II.

The *stele* here published (Fig. 75) was found in November, 1894, in digging the cellar of a house on the northeast corner of Kephissia and Academy Streets, opposite the entrance to the Palace Garden. It was presented to the American School of Classical Studies by the owner of the property, Mr. C. Merlin, and in January, 1895, was placed in the School grounds, where it now stands. In the same excavations sarcophagi and other *stelai* were turned up, and taken in connection with previous finds nearer the Syntagma, show that these graves lined one of the roads leading from Athens into the outlying country. Dr. Doerpfeld[1] has shown good reasons for believing that the gate by which this road left the city was that of Diochares, though the traditional view (which is maintained by other recent topographers like Curtius,[2] Lolling,[3] Milchhoefer,[4] and Wachsmuth[5]) puts the Diomeian Gate in this vicinity.

The *stele* is made of white Pentelic marble, with some flaws in it, and measures 1.98 m. in length, .82 m. in breadth. Both the upper and lower left-hand corners are broken and missing, as are also the nose of the figure, the tip of the left thumb, and various

[1] *Ath. Mitth.*, XIII (1888), 219; *ib.*, 232.

[2] *Stadtgeschichte von Athen*, pp. 107, 182; (und Kaupert) *Karten von Attika*, Bl. Ia.

[3] In IWAN MÜLLER'S *Handbuch*, III, 304.

[4] In BAUMEISTER'S *Denkmäler*, p. 149.

[5] *Stadt Athen im Alterthum*, I, 345.

chips from the drapery. It was found some 2.5 m. below the surface of the ground, lying on its side, which accounts for the corrosion of the surface of the marble on the right as one faces the relief.



FIG. 75.—STELE OF A DAMASCENE.

Between two *parastades*, surmounted by an inscribed architrave, is the figure of a middle-aged man, 1.62 m. in height, standing with his weight resting on the right foot, which is

slightly advanced. He wears a mantle (ἱμάτιον), but its draping is not in the usual fashion found on grave reliefs. Most often the right arm crosses the breast and is wrapped to the wrist in a fold which then passes over the left shoulder. Here the hand as well as the arm is covered, and the fold pulled much further down, so that the left hand, draped as far as the wrist, can clasp the right as the two meet easily in front. A considerable portion of the mantle is rolled up and passed about the neck from right to left, showing the χιτών beneath. It is the same side of the garment which covers both arms and falls in front with a tassel on the corner. In length the mantle falls well below the knees and binds the figure quite closely, so that the line of the upper and lower right leg is clearly visible through the cloth. On his feet are heavy sandals, with the various straps carefully worked. A seal-ring decorates the third finger (the παράμεσος) of his uncovered hand. This is the usual place for a ring, as Plutarch[6] and Gellius[7] inform us.

The effect of the head, large in its upper part, narrow at the chin, is much changed by the loss of the nose. We should conclude, however, from the type of face, with its high cheekbones, even had we no inscription to settle the matter, that the man whose portrait this is was no pure Greek, but a foreigner—a barbarian. We note, further, the high position of the ears, the small mouth with thin, tightly-compressed lips. The line of the mouth is quite straight, yet not so much so as to give an expression of weakness and indecision. What we have here is rather repose. The smooth-shaven face is commanded by a high and prominent forehead with sharp horizontal division. Above the temples the forehead is particularly high. The hair is treated in a very peculiar manner, which must have depended almost entirely on color for its effect. All traces of paint have disappeared from the hair and everywhere else; but if we can picture to ourselves a mass of dark on the upper part of the head, its apparent abnormal size in part disappears. The space allotted to the hair is indicated by a roughened surface raised from .001 m. to .002 m. above the adjacent flesh portion. For a similar treatment the

[6] *Quaest. Conviv.*, IV, 8.
[7] *Noct. Att.*, X, 10.

closest analogy I have found is a Roman head in the National Museum (Kabbadias, 345), in which case, however, the individual locks on the forehead are worked separately in the usual manner.

In working the folds of the mantle more pains are taken than anywhere else, even those parts not intended to be seen being carefully cut and smoothed. But the impression given by the work, as a whole, is that it is done by rote, from school-training, and not from careful observation of a model. There is lacking the delicacy, the illusion of really fine work. We never forget that the material is marble; it is a solid, in spite of the attempt to render the forms of the body beneath the soft outer garment. Surface finish is aimed at in the hem of the χιτών about the neck and on the front of the ἱμάτιον, the latter being further decorated by a tassel at the corner, which serves also as a weight for that loose portion of the garment. The details of the sandal straps show similar care.

On the other hand, the back of the head is scarcely rounded, but runs from its highest part nearly horizontally into the ground of the relief, instead of being cut more or less free. The right ear is higher than the left, the left eye higher than the right—things hardly done purposely. As compared with the chest, the head projects much too far—it is the point of the highest relief; the distance of the eyebrows from the background is .205 m., that of the chest but .118 m. (The former extends .105 m. beyond the architrave). The result is that the chest appears very imperfectly developed.

Turning to the architectural framing, we note that the *antae*-capitals are made of more elaborate moulding-forms than those of the fourth-century reliefs, and are not cut with the mathematical precision desirable. The outer side of the *antae* is left quite rough, particularly at the base, even above the level where it would be covered when set up. The back of the *stele* is scarcely worked—not even rough-finished—so that its thickness varies considerably.

It is evident from the appearance of the *stele*, as compared with others, as well as from the presence of a square iron dowel broken off flush with the surface in the centre of the top, that something made of a separate piece of marble was once attached there which

has now disappeared. In keeping with the architectural features of *parastades* and epistyle, we may supply a cornice with a row of antefixes, or, as was more common, a gable—probably rather steep in angle, as the *stele* is narrow—with three *akroteria;* three rather than two, as was frequent at this period, for the *stele* is larger than most, and seems to me to show reminiscences of earlier styles. When such a cornice or gable was made separate from the main part of the *stele*, a dowel on each side is more common and reasonable. There are, however, other instances than this where but a single one is employed, and the fact that the dowel is square lessens the danger of the gable turning on it as a center. Possibly, though not probably, a small, deep hole, longer than wide, which is visible back of the dowel, received a pin to give additional security from turning.

In the ground of the relief, on each side of the head and a little below its top, are two irons .02 m. in diameter, broken flush with the surface. Similar irons, sometimes as many as six or more, are often found in stones of the later period, and are to be taken as serving — before they were broken off—as pegs on which wreaths and the like were hung. Those on this *stele* are much heavier than the average.

On most *stelai* the epistyle is single; here it is double, the lower half .087 m. wide, the upper .08 m., and projecting .003 m. beyond the lower half. This bears the inscription, while the upper part may have been decorated with painted triglyphs and metopes, such as are occasionally found in plastic form on other stones of the Roman period.

The inscription, in letters .042 m. high, runs the whole length of the architrave, and is sadly crowded in its two final letters. The last word, the adjective Δαμασκηνός, is complete. Of the two names preceding, the first is gone entirely, the second has lost its beginning, but the letters ----]ευκου are preserved, and before the ε the stone is so broken that the upper part of a letter having a leg sloping from left to right is certain. The possible letters, then, are α, δ, λ. α is scarcely to be thought of, as the combination with the diphthong following is unusual. Of names whose genitive would end in -δευκου, Πολυδεύκης, the only one I have found, is to be excluded, as being so long as to leave not enough room

for another name preceding it. Λεῦκος is a possibility; the chief objection to it being the infrequency of its occurrence. Σέλευκος is a frequent name and one not unfitting for the father of a Damascene. If this is adopted, we have still room before it for a name of five letters; but what this was, it is idle to speculate. Epigraphical evidence for natives of Damascus in Athens is scanty, the only other grave-inscription which I have found being Κλεοπάτρα Διοφάντου Δαμασκηνή (*CIA.* III², 2406; Koumanoudes, 1639).

The date of our *stele* is a matter of some interest from its topographical bearing. Three possibilities are open in this connection:

(1) It is before the time of Hadrian, and included later by the city wall built by him on the east side of Athens, making *Novae Athenae*.

(2) It is before the time of Hadrian, but was excluded later by the new city wall.

(3) It is later than Hadrian, and therefore outside the new wall.

Unfortunately the style of the letters of the inscription cannot be ascribed with certainty to one or the other period, though the probabilities seem in favor of its being later than Hadrian and accordingly outside his wall.

At this period Athens was still the resort of men from all over the civilized world, drawn thither to enjoy the intellectual opportunities which she offered. Perhaps our unknown Damascene was among such. His expression of face is intellectual—let us call him a philosopher. His monument, by its size, shows him a person of some wealth, and in its simplicity has a suggestion of fourth-century work; and that, too, at a period when the public taste tended to prefer the florid and over-elaborate.

T. W. HEERMANCE.

A KYLIX BY THE ARTIST PSIAX.

[PLATE XXII.]

While working this spring in the Munich vase collection, on the vases which belong to the cycle of Epiktetos, I was fortunate enough to discover a kylix, which, on being cleaned, proved to be by the hand of Psiax. It is principally interesting in being the third vase, and the only kylix so far known by this master. The two other vases, both alabastra, are in the museums of Karlsruhe[1] and Odessa.[2] The plate given by Creuzer is thoroughly unsatisfactory, and I am enabled through the kindness of Dr. E. Wagner, director of the Karlsruhe collection, to present two photographs of that vase, which are far more serviceable for the purpose of comparison (Figs. 76 and 77.)

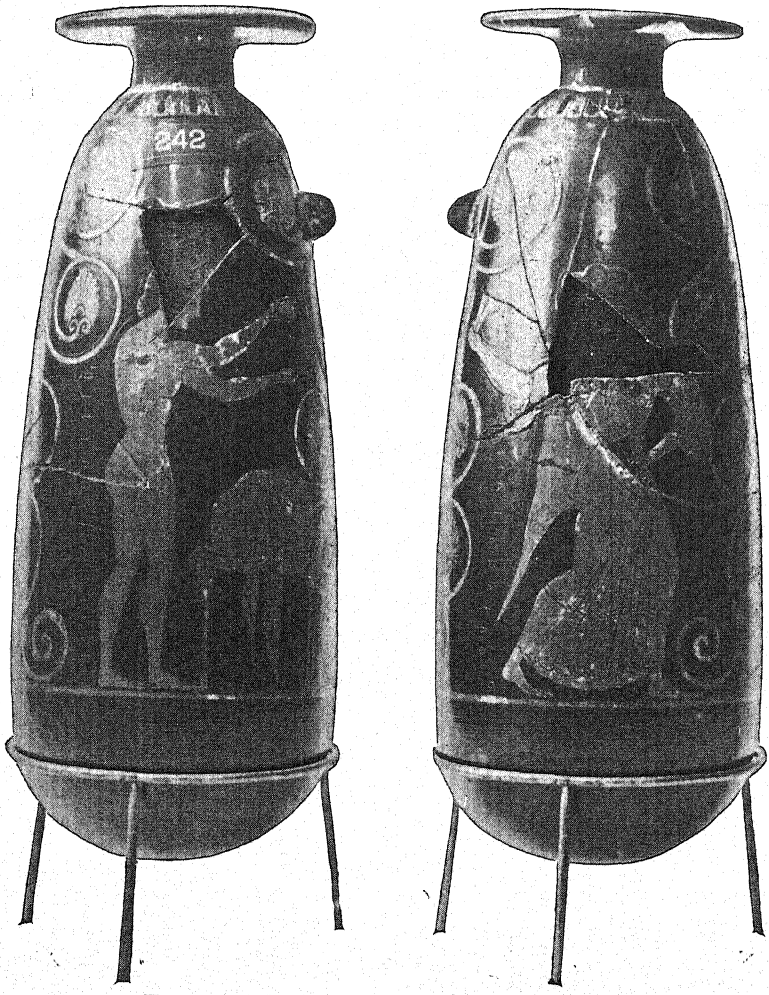
The kylix[3] under discussion belongs to the cycle of Epiktetos, with a black-figured central picture on the inside and red-figured outside (Plate XXII). The foot has the form common to the early part of the cycle—broad, heavy and somewhat clumsy. The outside design has on one side the figure of a warrior between two eyes, and on the other a nose and two eyes. The kylix varies from the common type of kylixes with eyes, which either has a figure between the eyes on each side or else a nose. This combination of eyes and nose on one side, and a figure between eyes

[1] WINNIFELD, *Catalogue*, No. 242. FRÖHNER, No. 120. CREUZER, *Ein altathenisches Gefäss* (*Archaeologie*, III, Taf. I). PANOFKA, *Vasenbilder*, Taf. III, 9 and 10. BRUNN, *Geschichte der griechischen Künstler*, II, p. 700. KLEIN, *Die griechische Vasen mit Meistersignaturen*, p. 134.

[2] *Alabastron by Psiax and Hilinos*, by Ernst von Stern; pub. by the University of Odessa, 1894. A synopsis, translated from the Russian, may be found in the *Archaeologische Anzeiger*, 1894, p. 180, with plate.

[3] Ht. 0.117 m, diam. 0.317 m. From the Candelori collection. The place where it was found is unknown. JAHN, *Vasens. zu München*, No. 1280.

on the other, is extremely rare.[4] Between the eyes and the handles are palmettes, two on each side. The kylix has been



FIGS. 76 AND 77.—ALABASTRON AT KARLSRUHE.

[4] I have only been able to find two other cases: (1) Collection of Altenburg, II, 6; inside black-figured Poseidon. Outside, A, eyes and nose. B, red-figured youth stretching his arm forward. (2) British Museum, E. 5. Inside, Red-figured stooping youth with halteres. Outside, A, Eyes and nose. B, Ephebos stooping to right. The nose in this case has been labelled "a post." Mr. Cecil Smith does not consider the object on our kylix a nose at all. I am aware that this fact is open to discussion, but in the absence of more definite evidence, prefer to remain by the common view.

broken into several pieces and mended again, with a few missing pieces restored.[5]

The central black-figured picture is that of a Seilenos[6] running rapidly to the right, while looking behind him (Fig. 78). In both hands he carries a wine-skin. He has a long, flowing horse's tail, horse's ears, and around his head a fillet bordered by little dots, evidently intended for an ivy wreath. Purple paint is used for the fillet, wine-skin, tail and mustache. The outlines (except that of the hair), as well as the various details, eyes, ears, hair, chest



FIG. 78.—SEILENOS. CENTRAL PICTURE OF KYLIX BY PSIAX.

and toes, are incised. The eyes are the common type of the cycle, seen from the front, and the pupil denoted by a disk.

The red-figured figure on the outside of the kylix is that of a warrior stooping to right, and nude save for a helmet and greaves (Fig. 79). He holds a shield (device three balls).[7] The

[5] Entire head of outside figure and the palmette to the left.

[6] For the head of the Seilenos see GERHARD, *Auserlesene Vasenbilder*, 41, 52 and 56. Also BULLE, *Die Silene in der archaeologischen Kunst der Griechen*. Inaugural Dissertation, München, 1893.

[7] The device was evidently a circle of balls, but owing to the foreshortening of the shield only three could be indicated.

figure is the natural color of the clay, and is drawn in broad, careful lines. Purple paint is employed for the crest of the helmet and the device of the shield. The four eyes have purple pupils with enclosing circles of white.

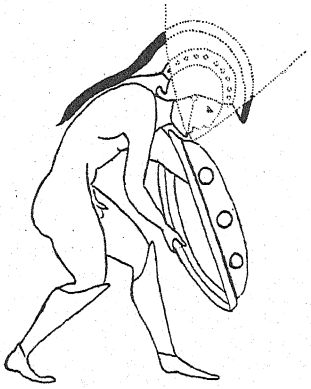


FIG. 79.—FIGURE OF WARRIOR, FROM KYLIX BY PSIAX.

The inscription (Fig. 80) in purple paint (now faded) is placed immediately above the nose. In spite of a thorough cleaning no further trace of the signature was discovered. We might have expected the rest above the warrior, but the restored piece there containing the warrior's head lies too far from the centre to have contained it. Suffice it to say, that the rest of the signature (if it ever existed) is now lost.

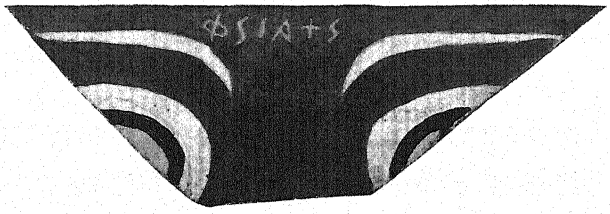


FIG. 80.—SIGNATURE OF THE ARTIST PSIAX.

That any vase-painter should sign his work without the verb is a thing unknown in Greek keramic art.[8] From the other two vases we find Psiax working in company with the potter Hilinus, but in this case we are under no necessity of looking for the latter's name, for we only know him from the two alabastra, and our vase is a kylix. Psiax's signature resembles very closely that on the other two vases, save in the employment of the three-barred *sigma*;[9] and being painted, not incised, as in the

[8] Several of the vases attributed to Euthymides (KLEIN, *op. cit.*, p. 195, Nos. 5 and 6) might be cited here as proof to the contrary, as these vases bear the name of Euthymides without the verb, but it has yet to be established beyond question that they really belong to that artist.

[9] The three-barred sigma occurs once in the name of Psiax on the Karlsruhe vase, and not at all on the Odessa vase. It is incised in the former, but whether the same

two alabastra; nor do we find ἔγραψε or ἔγραφε; and, as in this case Psiax is working alone, it is impossible to supply the missing verb. Its absence, however, need not trouble us much.

Von Stern (*op. cit.*) assigns to Psiax a date immediately prior to that of Euphronios, but this statement, though correct, needs some qualification. Had we only the two alabastra to judge from, which show a skill and freedom of drawing in advance of Pamphaios and equal in many respects to that of Epiktetos himself, we should be justified in regarding him as very nearly contemporaneous with the early period of Euphronios' work. But the discovery of this kylix makes it possible for us to date Psiax more exactly and to assign him a position in the early part of Epiktetos' cycle. In the first place, the form[10] of the kylix is the heavy and somewhat clumsy form used by all the artists of the later black-figured period and the early part of the Epiktetan cycle. The presence also of a black-figured central picture, with red-figured outside and eyes, is especially characteristic of this period. The palmettes[11] are of the early form, being a slight development of that used by Hermogenes, Tleson and their school, having the leaves still close together. The space under the handle is still left vacant and the palmettes turn away from it. Later the leaves became separated, and as the empty space under the handle was regarded as an eyesore, the stems of the palmettes branched downwards to meet in a design immediately below the handle. But as the love for filling the outside with figures increased, the palmette was abandoned entirely. The similarity of the palmettes on our vase and those on the alabastra may be noticed; the buds, however, on the Odessa vase are lacking here.

A comparison of the kylix in the Louvre by Nikosthenes

is true of the latter I cannot say. Such early instances of the three-barred *sigma* in Attic inscriptions are remarkable. I know of no case which is as early as this; and, were it not for the style, I should be inclined to assign the vases to a later date.

[See, however, the inscription cited by KIRCHHOFF, *Studien*⁴, p. 94, on a Hydria from Phaleron and the artist inscription from the Akropolis, Ἐφ. Ἀρχ. 1886, p. 81, No. 5. *Cf.* also KRETSCHMER, *Gr. Vaseninschriften*, p. 101.—ED.]

[10] The foot is broad and hollow. The thin foot is only used during the later part of the cycle.

[11] WINTER, *Jahrbuch d. k. d. archaeologischen Instituts*, 1892, p. 106, fig. 2.

(Klein, *op. cit.*, p. 70, No. 73), and this one shows us the intimate connection between the two artists during Nikosthenes' latest period. To assign an approximate date to the activity of Psiax, since we know his proper place in the cycle, is not difficult. Hartwig[12] has assigned the beginning of Euphronios' activity to the beginning of the fifth century, and Furtwaengler[13] to the last decade of the previous century. Considering the relation of the Epiktetan cycle to Euphronios, as well as Psiax's position in the cycle and his relation to Nikosthenes, we shall not err greatly if we say that he was in full activity during the last two decades of the sixth century. Greater accuracy is, of course, impossible, for we cannot tell how long a period his activity covers. The two alabastra are of a slightly later date than the kylix, but how much later I do not feel able to state.

To establish a "style" for Psiax, in view of the fact that we have only six figures by him, three of which are either incomplete or restored, would be rather too daring. But though I do not consider the ground safe enough to warrant our attributing other similar vases to this master, still we may gather some interesting facts from his work. It must be said for Psiax that, though he is extremely conventional, he is not unoriginal, for on his three vases we find two motives, which, so far as I know, do not occur in Greek keramic art before this time—namely, the athlete pouring oil into his hand, on the Karlsruhe vase, and the Amazon with her bow hung over her elbow, on the Odessa alabastron. The former is by no means a common scene in vase-painting.[14] It occurs on two vases in Berlin.[15] Both these are of a later date, the krater being in the style of Euthymides and the kylix by Duris. I know of no instance on a black-figured vase. The type of the Amazon in Scythian garb[16] is common enough, and the arrow

[12] *Die griechischen Meisterschalen*, p. 1 ff.

[13] *Berl. Phil. Woch.*, 1894, p. 105 n, 141 n.

[14] BLOCH, *Roem. Mitth.*, 1892, p. 88.

[15] Krater, No. 2180 (Furtwængler). Pub. in *Archaeologische Zeitung*, 1879, Taf. 4. Kylix, No. 2314. Pub. in GERHARD, *Trinkschalen und Gefässe*, Taf. 13.

[16] LOEWY, *Jahrb.*, 1888, p. 139, Taf. IV. *Cf.* Andokides kylix in Palermo, *Jahrb.*, 1889, Taf. 4. GERHARD, A. V. 197, 211 and 221.

testing motive also occurs,[17] but I have only been able to find one instance of carrying the bow over the elbow. It is a kylix by Kachrylion in the Louvre,[18] which, however, is later in style. Von Stern, however, is right in assuming that the warrior raises his helmet. A similar instance occurs on an amphora[19] in the British Museum, in the style of Euthymides. The warrior, however, does not necessarily raise his helmet to see the Amazon better.

The maenad on the Karlsruhe alabastron is a charming little figure but save for a curious fashion of treating the hair, in broad wavy lines (unlike anything of this period), there is little about her to attract our attention. Carrying the *krotala*[20] is a favorite motive for maenads. Psiax provided her with these as well as the *nebris*. It is a pity that most of the head is lost, for the figure is very cleverly done.

Turning to our kylix, the warrior on the outside is worth noticing, principally on account of his helmet. The scheme of a stooping warrior is a very common[21] one on many vases. The dotted lines on our plate show the restoration, which, as it now stands, is certainly wrong, for no helmet, such as the warrior wears, ever appears on any vase. Having carefully examined the size of the head, I feel quite sure that the helmet was of the Korinthian type, and drawn down so as to cover the whole face. Apart from the fact that the warrior on the Odessa vase wears a Korinthian helmet, which is the usual type at this time, we can find the closed helmet on many vases.[22] The helmet, as restored,

[17] Munich, 1229. Von Stern, I think has interpreted the figure wrongly. "Die Amazone scheint im Begriff, noch im Fliehen rückwärts gewendet, auf den verfolgenden Gegner einen Schuss abzugeben." Aside from the question whether any connection exists between the warrior and the Amazon, which is extremely doubtful, the latter is clearly testing her arrow, not shooting.

[18] HARTWIG, *Meisterschalen*, Taf. II, 2.

[19] E, 255.

[20] ROSCHER'S *Lexikon*, 2258 f.; *cf.* GERHARD, A. V. 172, 173; *Arch. Zeit.*, 1883-Taf. 15; *Mon. dell' Inst.* XI, Taf. 50.

[21] *Cf.* (1) kylix by Exekias, Munich, 338. Pub. in *Wiener Vorlegeblätter*, 1888–89, VII, 1, and GERHARD, A.V. 49. (2) SAMMLUNG SABOUROFF, I, Taf. 53. (3) Kylix by Kachrylion in Palermo; HARTWIG, *Meisterschalen*, Taf. I. (4) Hydria, style of Euthymides in Louvre. Room G., A, 41.

[22] *Cf.* GERHARD, A. V. 84, 85, 49 and 221.

provides the warrior with a band passing under the chin. It is probable, however, that the lower line of what appears to be his chin is the lower edge of the helmet (closed), and the line which has been continued in the restoration as a band reaching to his ear, is the outer edge of the lower end of the helmet. Restored as a Korinthian helmet, it fills the gap perfectly. A glance at the stooping figure on the Exekias kylix (see above, note 21) will show how the figure looked. Instances of foreshortening similar to that of the shield on our vase may be found in plenty in the *Auserlesene Vasenbilder*.

Finally, we must consider the Seilenos on the inside of the kylix. We find the motive of a Seilenos carrying a skin was used frequently by the painters of black-figured vases.[23] We find very nearly an exact duplicate of the figure under consideration on a red-figured kylix by Epiktetos.[24] Though our Seilenos is probably earlier than the Berlin kylix, we are not justified in crediting the invention of this motive to Psiax. We know Epiktetos was a far more original worker than Psiax, and in a case of doubt as to which one the invention of this motive should be ascribed, there should be no hesitation in giving it to the former. Save for a certain delicacy in the incising of the lines, our Seilenos has little to distinguish him from a hundred others. He is simply the type, repeated with monotonous regularity, of legs drawn in profile, body *de face*, and head turned in the direction opposite to that in which the figure moves.

Our summing up need not be derogatory to Psiax in any way. As I have shown, his originality is not great, but his conventionality was a common fault of the time. Considering the time in which he lived, that probably only some twenty years had elapsed since the introduction of red-figured vase painting, we find him handling his material with a surprising facility. He seems to have been a careful student of nature, for three of his figures, the athlete and the two warriors, must have been common sights of his time, and he has succeeded in reproducing them fairly well. We have not enough of his work to trace his progress, but such

[23] *Cf.* GERHARD, A. V. 38, 286 and 317–18[1]. In the two former cases the skin is carried over the shoulder and in the last under the arm.

[24] Berlin, No. 2262. A. V. 272.

as we have raises him from a purely inferior position to one in which he may fairly compete with many masters of the cycle to which he belonged.

In conclusion, I wish to express my thanks to Professor Furtwaengler for kindly allowing me to publish this vase, as well as for his suggestions; to Mr. Cecil Smith, of the British Museum, for reading this paper, and for the valuable criticisms he has given me; and to Dr. E. Wagner, of Karlsruhe, and Professor von Stern, of the University of Odessa, the former for the photographs of the Karlsruhe vase, and the latter for the copy of his article and the excellent drawing of the Odessa vase therein contained. Such kindness has gone far to make my task an easier one.

JOSEPH CLARK HOPPIN.

Munich, June 20, 1895.

REVIEWS AND NOTICES OF BOOKS.

W. M. FLINDERS PETRIE. *Egyptian Decorative Art.* A Course of Lectures Delivered at the Royal Institution. 8vo., pp. VIII–128. G. P. Putnam's Sons. 1895.

This little volume is a valuable contribution to the history of decorative art. It is limited, as indicated by the title, to Egyptian decorative art; but inasmuch as the decorative types of Greece and Rome and of their successors may be traced in great measure to those of Egypt, the volume has more than a limited interest. The subject is treated under the general headings: Geometrical Decoration, Natural Decoration, Structural Decoration and Symbolical Decoration; within these lines there are many enlightening statements in regard to the history and development of various decorative motives. The two earlier chapters are longer than the others. The development of the spiral motive, from its simple forms upon early scarabs to the most complicated networks upon Egyptian ceilings, is treated with great insight. The fret patterns are shown to be modifications of corresponding spirals due to the influence of weaving. Under Natural Decoration are included feather patterns, one form of which is the so-called scale pattern, and the many forms derived from Egyptian flora. Mr. Petrie adopts the usual assumption that the papyrus figures largely in Egyptian decorative art, but fails to make clear that such is the case. Under Structural Decoration, he offers an explanation for the somewhat puzzling lanceolate leaves which figure upon almost every Egyptian cornice. These he refers to palm branches, which were frequently left projecting from the top of wicker fences. These lectures are amply illustrated by two hundred and twenty figured designs, in which the colors are indicated by means of the ordinary heraldic signs. It is unfortunate that, on the page entitled Abbreviations, the symbol for yellow is given incorrectly. On the same page is misspelled the name of Schuchhart, an abbreviation for which is given as Schuck. There are several irregularities of spelling, such as Gizeh and Ghizeh, Tahutmes and Tahutimes. Amenhotep appears once as Amenhetop. A. M.

WILLIAM DOERPFELD. *Troja, 1893. Bericht über die im Jahre 1893 in Troja veranstalteten Ausgrabungen.* 8vo., pp. 140, 2 pl. F. A. Brockhaus, Leipzig, 1894.

This little volume gives an account of the excavations made at Hissarlik in 1893, in continuation of the excavations made by the late Dr. Schliemann. The last excavations of Schliemann upon the site of ancient Troy, made in 1890, did much to bring to light the ruins of what is now called City III. His report has been translated into English, and is found as an appendix to Schuchhardt's *Schliemann's Excavations.* Through the kind assistance of Mrs. Schliemann, Dr. Doerpfeld was enabled in 1893 to continue the excavations. The work of that year had the important result of ascertaining that City VI counting from the lowermost was Mykenaean in character and that the remains of this city lie wholly outside of the walls of what had been previously described as the Pergamos of Troy. The Mykenaean remains which lay within the walls of City III Dr. Doerpfeld believes to have been cleared away in the rebuilding by the Romans. The Mykenaean character of City VI he believes fully established by architectural evidence and by the discovery of pottery of Mykenaean style. The surrounding wall enclosed a larger space than that of the preceding settlements, was polygonal in plan and had rebates at the angles—a peculiarity which has been discovered also in the Mykenaean ruins upon the island of Gha. The buildings which he brought to light consist of several *megara.* One of these was larger than the *megara* at Tiryns and Mykenai. Another having a row of columns through its centre he describes as a temple from its evident analogy to the temple, described by Koldewey, at Neandreia. This identification, if true, is of considerable importance since it is the first temple of the Mykenaean period yet discovered. City VI at Troy holds an important place in the history of Mykenaean architecture, since its buildings were wholly of stone and of better workmanship than similar constructions at Tiryns and Mykenai. The number of superposed fortresses or settlements have now been determined to be at least nine, which Doerpfeld describes in the following summary: I. Lowest primitive settlement. Walls made of small broken stones bonded with clay. Primitive finds. Period estimated from 3000–2500 B. C. II. Prehistoric fortress with strong walls of defence and large brick dwellings, three times destroyed and rebuilt. Monochrome pottery. Many objects of bronze, silver and clay. Probable period 2500–2000 B. C. III, IV, V. Three village-like, prehistoric settlements above the ruins of burned fortress II. Houses of small stones and brick. Early Trojan pottery. Period about 2000–1500 B. C. VI. Fortress of Mykenaean period, strong city

walls with a large tower and stately houses of well wrought stone, the Pergamos of Homer's Troy. Developed monochrome Trojan pottery together with imported Mykenaean vases. Period about 1500-1000 B. C. VII, VIII. Village settlements of early and late Greek times, two separate layers of plain stone houses above the ruins of City VI. Local monochrome pottery and almost every variety of Greek keramics. Period 1000 B. C. to the Christian era. IX. Akropolis of the Roman city Ilion with the celebrated shrine of Athene and magnificent marble buildings. Roman pottery and other objects and marble inscriptions. Period from the beginning of the Christian era to 500 A. D.

The new discoveries of pottery and the inscriptions are published and briefly described by Dr. Alfred Brueckner. A. M.

PAUL GIRARD: *de l' Expression des Masques dans les Drames d' Eschyle.* Reprinted from the *Revue des Études grecques*, 1894 and 1895.

The whole question of the character of the masks worn by actors in the classical period of the Greek drama is involved in obscurity. The notices of Pollux, Suidas, and other late writers are of extremely doubtful value for the age of Aischylos and Aristophanes. Our positive knowledge for this period amounts to very little, much less than most writers on scenic antiquities have been willing to acknowledge. Judging from the universal use of masks in late Greek tragedy and comedy, we should have the right to assume their use by Aischylos, even if Horace had not recorded the tradition which attributed their invention to him. Furthermore we have no reason to discredit the story that the actors in the rude early comedy smeared wine-lees on their faces to effect a disguise. From this to a simple, perhaps stained, linen mask, which is attested for the latter part of the fifth century by a fragment of the comic poet Plato (*ὀθόνινον πρόσωπον*) is an easy step. Aristotle did not know who took this step in comedy. The earliest reference to the tragic mask seems to be Arist. *Thesm.* 258. Euripides is getting from Agathon a tragic costume in which to dress his *κηδεστής*. In answer to his request for a head-dress Agathon replies: *ἡδὶ μὲν οὖν κεφαλὴ περίθετος ἣν ἐγὼ νύκτωρ φορῶ*, with these words offering him a sort of night-cap. If this article was not a complete mask for the face, at any rate it was a sufficient disguise for the man who was to masquerade as a woman. Of about the same date is the reference to a *περίθετον πρόσωπον* in the comic poet Aristomenes. Aristotle refers to both tragic and comic masks but gives no information about their structure and appearance. We are justified in believing the statement of Platonius that the masks of the old comedy were so made as to suggest, often in caricature of course, the features of the person repre-

sented. This is in accordance with the nature of the old comedy, and is distinctly to be inferred from Arist. *Eq.* 230 ff. Probably not until late in the fourth century were portrait masks displaced altogether by the typical masks catalogued by Pollux. In tragedy the more familiar figures of mythology may have received a similar conventional treatment as early as Sophokles.

So much we may claim to know on good authority about the masks used in the classical drama. But as regards the details of their structure, the expression given to them by the σκευοποιός, and the extent to which they admitted, on the part of the actor who wore them, of the play of feature which to us moderns is so essential to an artistic dramatic performance, our knowledge is seriously circumscribed by the fact that all our information is derived from very late writers and works of art. It is manifestly unmethodic to accept without question Lucian's descriptions as correct for the tragedy of six centuries before. Such masks, and those found in late wall-paintings, vase painting, statuettes and the like, may be regarded as direct descendants of those of the earlier period. In fact it seems probable that the paintings from Pompeii give evidence for the usage of the Alexandrian period. And yet we cannot know what changes took place in the make-up of masks during the long period of evolution in all things theatrical that extends from Euripides to Menander, and then to Lucian. To gain even a provisional idea of the tragic mask of the fifth century, we must have recourse to the dramas themselves, though the evidence there found must be employed with extreme caution for purposes of reconstruction, although it may prove valuable to correct and control the data gained from later sources.

M. Girard, in the interesting series of articles under consideration, has undertaken to throw light on this difficult and delicate question. He has prefixed to the analysis of the plays of Aischylos two preliminary studies: 1) *les jeux de physionomie dans la poésie grecque avant Eschyle*, and 2) *les jeux de physionomie dans la sculpture et dans la peinture jusqu'au temps d'Eschyle.* The results obtained from these careful and discriminating studies are in brief as follows: The various expressions of the human countenance as mirroring the emotions of the soul were well understood by the Greeks at a very early period. The epic and lyric poets accurately and skilfully describe not only the simple emotions, but also the more complex, even in their more delicate shades, by reference to their effect on the features. The slow progress of art in the same direction forms a marked contrast. Early sculpture oftentimes labored under the constraint of convention, but even its attempts to impart lifelikeness resulted in failure; witness the "archaic smile." Portrait sculpture was hardly successful before the

fourth century. Painting, however, was more precocious in this respect than sculpture. Polygnotos succeeded in some degree in faithfully rendering the traits of the physiognomy. The best evidence is found in vase-painting, in which the eyes, brows, mouth, and the main lines of the face received intelligent treatment before the time of Aischylos. Special aptitude for the portrayal of foreign types and of monsters was early shown. But at best art was far behind literature in the power of depicting the human face in its various moods.

M. Girard finds in Aischylos still greater knowledge of the meaning of facial expressions than was shown by his predecessors. To a limited extent the expression of the mask may be derived from the text. For example the mask of the Oceanides expressed sadness, that of the chorus in the Septem terror, that of the chorus in the Choephoroe was ridged with bloody furrows, etc. On the other hand the many shades of expression could not be rendered by the mask, especially changes of expression during the course of the action, except where a change of mask was practicable. In general the face was imprisoned in a rigid covering which gave one expression only, unchanged by the emotions which affected the character. The result was a monotony, an unnatural stiffness, that must have been depressing even to an imaginative Athenian audience, thoroughly accustomed to the unwieldy conventions of the stage. This would be especially repugnant to our feelings in the cases which Girard collects, where the character enters wearing at the very beginning an expression which is appropriate only to a situation which occurs during the progress of the performance. Yet he accepts cheerfully what seems to be a necessity, finding a partial explanation of the strange custom in the familiarity of the Athenians with the stationary figures of unchanging expression in contemporary wall-paintings. In short M. Girard's conception of the masks of Aischylos differs from that of Müller, Arnold, and others practically in this alone—that he presupposes somewhat less skill on the part of the artist who painted them.

It is to be regretted that the author of this valuable paper proceeded with an excess of caution due, perhaps, to a failure rightly to estimate the value of the late evidence on the structure of tragic masks for the reconstruction of the masks of Aischylos. The majority of the references in late literature, Greek and Roman, cannot be used at all. Pollux describes, in addition to the masks of his own day, only those which he found in his sources, mainly Juba of Mauritania, who drew upon the work of Aristophanes of Byzantium περὶ προσώπων, on whom depend most of the scattered notices in the scholia. As a matter of fact very few of the tragic masks catalogued by Pollux can be identified with the tragic characters of the fifth century, excepting the

ἔκσκευα πρόσωπα, which would be liable to little change. In view of these facts the force of the author's observations leads distinctly to the conclusion that the early masks allowed much greater freedom to the actor's face than those of a later period. The coloring of the face would lead naturally to the employment of a wig extending down to the eyes. With the addition of a beard the face would still be left free. With a mask of this kind any character could be impersonated, without loss of the facial expression essential to real acting. With the introduction of the typical characters of the new comedy masks which covered the whole face may have come into use, and the custom may have affected tragedy also,[1] which was no longer in a position to resist harmful innovations. For the professional class of actors, who took both comic and tragic rôles, this would have been a great convenience, and may be ascribed to their influence. A similar change took place at Rome in the first century. In his early days, as Cicero tells us, Roscius played without a mask, and, after he had yielded to the new custom, which recommended itself to him on account of his imperfect eyes, certain of the older generation could not reconcile themselves to his wearing it. It seems to me, therefore, on the strength of these general considerations, quite conceivable that the tragic mask of the fifth century did not always cover the whole face. I do no more violence to the tradition than does M. Girard when he rejects the ὄγκος for the time of Aischylos. Of these considerations the most weighty are furnished by M. Girard himself, and admit of strong reinforcement from the plays of Sophokles and Euripides. Theodor Mommson has in fact pointed out that the realistic tendencies of the last named poet should logically have led to the abandonment of the mask altogether.

In support of this belief, to which M. Girard has led me, I may be permitted to adduce a few further arguments. The burlesque tragic mask in the passage from Aristophanes above quoted, the earliest reference we have, did not cover the whole face. Such half-masks, which left the lower part of the face free, are found depicted in ancient art (*cf.* Wieseler, *Theatergebäude und Denkmäler*, Taf. VI, 4, X, 1), and may well be reminiscences of an earlier custom. Furthermore the tragic actor of the classical period was able to express with the greatest art the emotions suitable to his part, if we are to believe the story told by Gellius of the famous actor Polos, the instructor of Demosthenes. Polos was playing the part of Elektra in the play of Sophokles. When he came to the scene in which Elektra takes the urn supposed to con-

[1] One of the earliest representations of the tragic mask in art, a relief from Peiraieus, is of the full-faced kind. Robert thinks the work is of the fourth century, though the inscription is much later. See *Ath. Mitth.*, 1882.

tain the ashes of her brother, Polos took in his hands the urn that contained the remains of his own son who had recently died, and acted the scene *non simulacris neque incitamentis, sed luctu atque lamentis ueris et spirantibus.* It is unnecessary to say that he could not have had his face enveloped in the rigid mask of later times

M. Girard's article is deserving of careful study by all who are interested in ancient art and the classical drama. It is full of interesting observations and discussions which space does not permit to report severally. I may mention, however, as especially interesting to students of the drama, the classification of the types of masks in Aischylos, the remarks on the close relationship between Aischylos and the stage-drama, on the chevelure of the characters of Aischylos, and his explanation of the origin and purpose of the ὄγκος, which he thinks was devised to counteract the flattening effect of the strong light falling upon the heads of the actors, especially from the point of view of the spectators who occupied the upper rows. It may be remarked that this is another argument against an elevated stage; for there would have been much less need of the ὄγκος for this purpose if the actors occupied the top of the proscenium than if they moved on the level of the orchestra. EDWARD CAPPS.

F. L. VAN CLEEF. *Index Antiphonteus.* (No. v of Cornell Studies in Classical Philology.) 8vo., pp. VI–173. Published for the University by Ginn & Co., Boston, 1895.

Indexes of the classical writers, complete and trustworthy, which shall present every word in its every occurrence, are invaluable to classical scholars. Studies in syntax, diction, and style are thus greatly facilitated. The investigator is at once spared much labor, and his inductions are based on a complete survey of the facts. Indexes of this thoroughgoing order are comparatively recent,—von Essen's Thucydides 1887; Paulsen, Hesiod 1890; Gehring, Homer 1891; Preuss, Demosthenes 1892.

This Index to Antiphon has several admirable features. It is absolutely complete, where Preuss leaves a dozen words untouched and other articles imperfect, and it goes much further than its predecessors in classifying uses and constructions. More noteworthy still, the work is practically a concordance—enough of the context is quoted to show at a glance meaning and construction without turning to the text. Numerals at the end of each article and subdivision give the statistical summation. In many cases (pronouns, conjunctions, particles) a second and third tabulation is added to show position of the word in the sentence, or its relation to other words in set phrases. Nothing so thorough has yet been attempted. The text is that of

Blass in the easily accessible Teubner series. Freedom from errors has been secured by the doubled labor of verifying every reference from the printed proofs.

The author announces his intention of proceeding with the other unindexed orators of the Canon. Praise is due the University, which makes possible the publication of works like this, in which no publisher can expect to find profit. Every fresh addition in this line advances the study of the development of syntax and style and prepares the way for the final Greek lexicon. The author will have no mean reward for his patient toil (no tyro can do this work, mechanical as it might seem) in its immediate appreciation by scholars everywhere, as well as in the realization that few works in the classical sphere are so sure of abiding a permanent treasure. S. R. W.

W. M. RAMSAY. *The Cities and Bishoprics of Phrygia;* being an essay of the local history of Phrygia from the earliest times to the Turkish Conquest. Vol. I. The Lycos Valley and South-western Phrygia. 8vo., pp. XXII–352. $6.00. Oxford, Clarendon Press. New York, Macmillan & Co. 1895.

Prof. Ramsay has again laid students of antiquity under obligation to him by the researches into the geography and history of Asia Minor which are contained in this work. The present volume, the first of a series on the Cities and Bishoprics of Phrygia, is confined to the valley of the Lycos and South-western Phrygia; but the material collected, even from this limited area, is so large and of such varied interest that it was well to publish it by itself. Phrygian history moreover is not a unit. At different periods the territory was differently divided. Its parts were often politically separated. Its chief cities were quite distinct in origin and often in their customs. Hence the historian of Phrygia must necessarily present us with a series of studies, largely independent of one another; so that this volume does not suffer from being issued alone but has value entirely apart from that of the rest of the series.

There are but few scholars competent to criticise in detail the results at which Prof. Ramsay has arrived in the field which he has made peculiarly his own. His book is rather one out of which other histories will be made. Some of his minor statements will no doubt be contested by other experts. Some of them indeed are put forward tentatively by the author. But his main facts and inferences are incontestable and every scholar, who is interested in the history of Western Asia, will be grateful for the exact descriptions, the large

number of minute *data*, the many inscriptions which Prof. Ramsay has provided for his consideration and use.

The volume begins with a sketch of the topography of the region under review and a brief outline of its political and religious history from the earliest period,—when the invading Phrygians from the North met and mingled with the obscure 'Hittites' on this territory,—on through the successive domination of Oriental, Greek, Roman, Byzantine and Tukish powers. The land was always a battle-ground of opposing systems and often of opposing armies. Hence the paucity of its remains. Hence too the remarkable differences which the cities of this region maintained, side by side with the blending of divergent customs and ideas. After the introductory sketch, there follow studies of the separate cities or groups of cities, giving all that is known of the origin, situation, religion, social and political regulations of each; each chapter being also accompanied by a collection of the extant inscriptions and a list of the bishops, so far as recoverable, of the city or district under review. The chief places thus described are Laodiceia, Hierapolis and Colossai. The historic importance of these makes the facts collected about them of unusual interest. Some of the smaller cities, however, supply equally valuable material. In such a large collection of diverse information, each reader will be attracted by those facts which pertain to matters in which he is specially interested, and his valuation of the book will be apt to depend on his particular point of view. Without meaning to slight the other features of the work, we have noted the information given as to the political officers of the Asian municipalities. The descriptions which bear on this are mainly confirmatory of facts already known, but supply new and interesting proofs. Those of Laodiceia and Hierapolis are specially full and instructive. The religious ideas of the people are also noteworthy. Of course there was a blending of these, first of the Phrygian with the older Lydian and then of both with the ideas of the Græco-Roman world. Yet the original types frequently persisted. In Hierapolis the Lydian held its place with its emphasis upon the female conception of deity and its consequent tendency to extreme immorality; in Colossai, the Phrygian, with its emphasis on the male element in deity; while in Laodiceia and Tripolis the characteristic features were Greek. Ramsay remarks of the Lydian cultus (p. 96) that its ritual, not being in accord with the facts of life or with the integrity of the family and of society, the work readily yielded to the progress of early Christianity, since the better educated portion of the people felt the need of a more natural and purer religion. Equally instructive is the light thrown by the inscriptions on burial customs. Many of the inscriptions are from tombs, and express the intense

desire of the departed that his sepulchre should not be violated. The Phrygian tombs were conceived to be temples and the dead to have either returned to God or to have became themselves deified. There is a notable absence however from the inscriptions of statements concerning the nature of the future life. The volume contains a map of S. W. Phrygia, but none of Phrygia as a whole. The index is doubtless to appear at the close of the whole work, but one for the separate volume also would be an aid to future students.

GEORGE T. PURVES.

OTTO WASER. *Skylla und Charybdis in der Literatur und Kunst der Griechen und Römer.* 1894, 8vo., pp. 147. F. Schulthess, Zürich.

The author of this monograph has collected with great care and patience the available information concerning Skylla and Charybdis. As Skylla is by far the more interesting person—for Charybdis hardly arrives at the dignity of personality at all—the greater part of the book is devoted to her. The name Skylla, as also Charybdis, is derived from a "Semitic" source, *i. e.*, from the Phœnicians, who were the teachers of the Greeks concerning the sea and its dangers. They sailed about Sicily and gave the names of Skylla and Charybdis to the dangerous points of the straits of Messina. So far Waser accepts the conclusions of other scholars, adding no new facts in defence of those conclusions. In her essence, Skylla is the personification of the sea and its dangers. This is shown by her genealogy. In the Odyssey, XII, 124, her mother is called Κραταιίς, but this is a mere epithet of Hekate (Ap. Rhod. IV. 828 f.). Other genealogies are discussed, but the conclusion is reached that Hekate-Krataiis and Phorkys were the real parents of Skylla. Her relations to Hekate, Gorgo, and Glaukos are discussed at length, showing how she is at once a personification of the sea and a demon of death. Nearly all the so-called representations of Glaukos with Skylla are doubted or rejected. In some cases not Glaukos but Triton is represented. That the Skylla of Megara is confused with the terrible demon Skylla by late poets is mentioned, and the discussion of Skylla and Charybdis in literature closes with a series of notes or remarks on the passages in classical and patristic literature in which they are referred to.

In the course of his discussion of Skylla and Charybdis in art, Waser comes to the satisfactory conclusion that Charybdis does not appear in art at all. Skylla, on the other hand, is represented many times and in different ways. Most frequently she has the head and trunk of a young woman, from about her waist spring the bodies, forelegs, and heads of beasts, and she ends in a fish's tail, or later in two such

tails. The number of beasts varies from two to eight, and their character is not always the same. Sometimes they partake of lupine or equine nature, but they are usually dogs, either two or three in number. Nearly or quite all Etruscan figures which have been called Skylla are found to represent no person of Greek mythology, but an Etruscan demon. An enumeration of coin types and gems representing Skylla is followed by a brief treatment of paintings and a discussion of fragments of a group of statuary. Parts of several replicas of this group exist. In addition to those mentioned by Farnell in the *Journ. of Hell. Stud.*, 1891, p. 54 ff. (who gives references to earlier literature), fragments in the basement of the British Museum are discussed (*cf. Arch. Anz.*, 1866, p. 203). The group represented Skylla girt with sea-dogs brandishing in her right hand an oar, while her left seized a bearded man by the hair. Each of the dogs had seized one of the companions of Odysseus whose ship was indicated by a prow at the right of the group. The group existed in a bronze copy in the hippodrome at Constantinople if epigrams in the anthology can be trusted, but other replicas were numerous, for Themistios (*περὶ Φιλίας*, p. 279 Dind.) speaks of seeing the statue of Skylla in many places. In this group Skylla did not end in fishy tails, but her lower parts appeared to be hidden in sea weed. In style the group was related to the Pergamene reliefs and the Laocoon group. An inscription found in Bargylia in Caria together with the fragments of the Skylla group in the British Museum bears the name of Μέλας Ἑρμαίσκου, and a Melas is known from an inscription in Thebes (Loewy, *Inschr. gr. Bildh.* No. 148) dated between 371 and 240 B. C. As this Melas was not a Theban, Waser suggests that he may have been identical with the Melas of the Bargylia inscription, and perhaps the Skylla group was his work. But all that can be said about the style of the group points so strongly to the second century B. C., that this identification is highly improbable. The monograph closes with a catalogue of representations of Skylla. Thirty vases, one lamp, twelve other reliefs, three figures in the round (one repeated three times on a tripod), and one mosaic are described. From this catalogue all representations discussed in the body of the work are excluded. This is unfortunate, as a complete catalogue would be convenient. The monograph can be recommended as a careful and, apparently at least, complete collection of material, in the discussion of which the author shows both learning and good sense. Not much that is new is offered, nor is there much originality of speculation, but the subject is more exhaustively treated here than anywhere else, so far as I know, and the conclusions reached are in almost every instance perfectly sound. HAROLD N. FOWLER.

SALOMON REINACH.—*Pierres Gravées des Collections Marlborough et d'Orléans, des Recueils d'Eckhel, Gori, Levesque de Gravelle, Mariette, Millin, Stosch, reunies et reéditées avec un Texte Nouveau.* 4to, pp. XV, 195; plates, 137.

This is the fourth volume of the important series published by M. Reinach, entitled *Bibliothèque des Monuments Figurés Grecs et Romains.* The aim of this series is to re-edit in handy shape, large and important archæological publications and to bring them within the reach of the ordinary scholar's purse. In many cases the illustrations of monuments are of great value, while the text is now antiquated. The text of such volumes is therefore not reproduced, but instead of it brief, explanatory notes and full bibliographical references. The first of these volumes rendered more accessible the plates of Philippe Le Bas' Voyage Archéologique. The second volume put before scholars the illustrations of ancient vases by Millin and by Millingen. The third re-edited the antiquities of the Cimmerian Bosphoros. The practical character of the present volume may be seen from the fact that the eight books, which form the series from which the illustrations are taken, were published in thirteen volumes, eight of which are in folio. They were distributed over 1113 plates and could not be secured for less than 1000 frcs. Two at least of the volumes are now quite rare. The notes preceding the plates indicate the dimensions of the engraved gems, their material and subjects and present bibliographical references and a summary and critical estimate of the books which constitute the source of the present volume. This work exhibits the bibliographical learning and skill in interpretation, for which M. Reinach is famous and enjoys a well-earned reputation. The plates contain reproductions of 2150 engraved gems. A. M.

WALTER BESANT. *Thirty Years Work in the Holy Land* (1865–1895). 8vo., pp. 256. Macmillan & Co. 1895. Price, $1.50.

This little volume is a record and summary of the English Palestine Exploration Fund. It is intended to convey information to the general public, who have not the leisure to follow the periodical and large publications of the society. Here they may find a brief account of the foundation of the society, of its first expedition, of the excavations at Jerusalem, of the surveys of Western and Eastern Palestine, and of the monuments of the country. Such a record prepared in 1886 had a wide circulation. The present volume is a new and revised edition and comprises some account of the work of the last eight years.

A. M.

JAMES L. BOWES. *Notes on Shippo. A Sequel to Japanese Enamels.* Large 8vo., pp. XII–109. Kegan Paul, Trench, Trübner & Co., Paternoster House, Charing Cross Road, London, 1895.

This charmingly printed little volume forms a sequel to the author's Japanese Enamels published in 1884. After giving a resumé of that volume he proceeds to give additional historical material based upon original traditions and records. The term Shippo is used to designate the Seven Precious Things, namely, gold, silver, emerald, coral, agate, crystal and pearl, but is used in a wider sense for polychromatic enamels in general. The earliest example of Shippo in Japan is a mirror said to have belonged to Emperor Shomu, whose reign commenced 724 A. D. Although the evidence for the date of this mirror is not conclusive it is admitted by Professor Kurokawa, who compiled the official work known as Kogei Shirio, and by other authorities to be the earliest known example of Japanese Shippo. The mirror is still preserved in the Imperial Treasure House at Nara and students of Japanese art will be grateful to Mr. Bowes for the excellent reproduction of it here given. The second object described and figured is the Origoto of Chomei, a Japanese harp referred somewhat doubtfully to the second half of the XII century. From the XV and XVI centuries to modern times, Shippo has been produced with occasional periods of revival or decadence. In spite of the various local traditions that this art was of foreign origin, Mr. Bowes holds to its continous Japanese character and to the finer quality of the earlier as compared with modern work, which is made largely for export. As an appendix he adds notes upon glass making, on forms and uses of enamel works, on signatures and other marks and a careful study of the works of the Hirata family. A. M.

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ASIA.

BABYLONIA.

ON THE BABYLONIAN ORIGIN OF EGYPTIAN HIEROGLYPHICS.—At the last meeting of the International Congress of Orientalists in London, Prof. Hommel's paper on the Babylonian origin of Egyptian hieroglyphics, and of Egyptian civilization in general, excited much attention. In a work which he has in preparation, Prof. Hommel claims that Sumerian represents the oldest language of the world, and has a close relationship with Turco-Tartaric languages on the one side and with Aryan languages on the other. The derivations proposed by him of some of the Aryan names of domestic animals, such as "horse," "donkey," "mule," "goose," "cow," and "sheep," will surprise philologists.—*Biblia*, Nov.

PUBLICATION OF BABYLONIAN AND ASSYRIAN TEXTS.—Prof. J. A. Craig, of the University of Michigan, will shortly complete a series of Assyrian and Babylonian religious texts, being chiefly hymns, prayers, oracles, *etc.*, Kouyunjik Collections in the British Museum The first part of the work will contain, on eighty-three autographed pages, the cuneiform texts, together with a preface and a table of contents. Vol. II, which will follow in the course of a year, will supply a full transliteration, English translation, a short commentary and glossary; additional texts will also be appended. Dr. Craig's work will be heartily welcomed by all those who, unable to find time to refer to the cuneiform originals, wish to make themselves acquainted with the

religious system of the Babylonians, the value of which for the Bible student is now undisputed.—*Biblia*, Nov.

BABYLONIAN ARCHÆOLOGY.—In the annual report of the Société Asiatique (*Journ. Asiatique*, T. VI, p. 156), the secretary sums up the work of the last two years, in which he notices the expedition of de Sarzec and the articles of Heuzey based upon the discoveries; also the four hundred and seventy tablets discovered by Scheil at Sippara. Notice is also taken of the articles by Oppert in the *Zeitschrift für Assyriologie*, based upon the discoveries of the University of Pennsylvania expedition to Babylonia. One of these concerns an inscription published by Hilprecht, which fixes at six hundred and ninety-six years the interval which separated Gulkisar from Nebuchadnezzar, thus affording the means of controlling and confirming the list of kings of the second and third dynasties. Oppert also writes of another inscription, published by Hilprecht, as the most ancient Semitic inscription hitherto known. It dates probably more than four thousand years B. C. The author of it was Bengani-sar-iris, King of Akkad. This name, which cannot be read with absolute certainty, cannot be identified with Sargon I. on palæographic grounds; it seems to be earlier than the time of Sargon.

THE CELESTIAL SPHERE OF THE CHALDAEO-ASSYRIANS. — Recent studies upon the age of the Rig Veda have brought into prominence the early character of the astronomical notions of the Hindus. This leads us to consider again the celestial sphere of the Chaldaeo-Assyrians and of the dates to be assigned to the signs of the zodiac. To this people is due the determinations of the twelve zodiacal constellations and of the signs by which they are known, with the exception only of the Scales.

THE BULL.—A Chinese document, it is said, records the observation of the star η of the Pleiades, as marking the spring equinox of the year 2357 B. C. As a matter of fact, it had the same right ascension as the point of the spring equinox of the year 2161 or 2170 B. C. This has been made the point of departure for the exaggerated calculations of Piazzi Smyth and Haliburton. The Romans, as we see from Vergil, regarded the bull as the first of the zodiacal constellations. The Romans' belief was but an echo of the ancient Chaldaean zodiac. This symbol, therefore, belongs to the third or possibly fourth millennium.

THE LION.—As the Bull coincided with the point of the spring equinox, so the Lion coincided with the summer solstice. The lion appears containing the point of the summer solstice upon one of the two zodiacs of Denderah, which, however, dates only from Roman times. The first original of this Egyptian copy, in making the sum-

mer solstice coincide with the annual passage of the sun in the sign of the Lion, carries us back to a condition of the heavens which existed five or six thousand years from the present day. The zodiac, therefore, dates from that time.

VIRGIN.—In Egypt also, at Esneh, a planisphere represents the solstice point as placed, not in the sign of the Lion as at Denderah, but in the following constellation, that of the Virgin. The same thing occurs in a zodiac upon the ceiling of a pagoda near Cape Comorin, in South Hindustan. About six thousand years ago the summer solstice took place when the sun passed in the sign of the Virgin: this brings us back to the same date for the origin of the zodiac.

AQUARIUS.—The Chaldaeo-Assyrians connect with this symbol the memory of the deluge recorded in one of the tablets of the epic of Nimrod (Izdubar). In the year 2795 B. C. occurred the upper passage of Aquarius toward the meridian. This conjecture has no great value, but may lead to more fruitful discoveries. Upon a Babylonian cylinder Aquarius is represented in winter costume, from which we may at least learn that this sign is as old as Chaldaeo-Assyrian civilization.

SIRIUS.—Leaving the zodiac, we turn our attention to the remainder of the celestial sphere. Sirius, the α of the constellations of the Great Dog, and the most brilliant of the fixed stars, played, under the name Sothis, an important role in the astronomical observations of the subjects of the Pharaohs. Its rising announced to the Egyptians the annual inundation of the Nile. The great cycle of the Chaldaeo-Assyrians, consisting of 1805 years, analogous to the Egyptian sothic period of 1460, carries us back to the date 11542, at which time, according to Oppert, men who lived in a country no farther north than the 23° of latitude, might have observed the rising during a solar eclipse of the star Sirius, which had hithertofore been concealed from them. This date would be the most ancient in history.

THE DRAGON.—This constellation was undoubtedly one which figured upon the celestial sphere of the Chaldaeo-Assyrians. It is mentioned in the Book of Job, chapter XXVI, 13, and by Vergil in *Georg.* I, 244–245. It appeared also in the figured monuments of the Phoenicians. In the Caillou Michaux and analogous Chaldaeo-Assyrian monuments in the British Museum, we find a great serpent occupying a large portion of the sky. The Cabinet des Medailles of the Bibliothèque Nationale contains a monument which figures a divinity half-human, half-serpent, in the presence of the sun and moon. This divinity apparently symbolizes a star of the heavens.—P. BOURDAIS, *Journ. Asiatique*, 1895, p. 142.

ASSYRIA.

BRITISH MUSEUM.—OBELISK OF SHALMANESER II.—One of the most remarkable monuments of the art and history of a bygone age in the British Museum is the famous Black Obelisk of Shalmaneser II. After lying for centuries in its sandy grave amid the ruins of ancient Nineveh, it was discovered by Layard at the close of 1846, and despatched, carefully guarded, to London. Round its four sides is a finely written cuneiform inscription recording the annals of Shalmaneser for thirty-one years commencing B. C. 860; and at regular intervals are twenty sculptured panels illustrating the presentation of tribute to the Assyrian monarch. All the figures are sharp and well-defined, and the different articles of tribute can be easily recognized. The cringing, fearful attitude of the bearers, as well as the unmistakably Jewish cast of the features, are admirably rendered.

The chief panel is about to be modelled by Mr. Alfred Jarvis (of Willes Road, London), whose beautiful reproductions from the Assyrian sculptures have excited so much attention. Two hundred copies are to be issued in Copeland's *parian*. This bas-relief is of more than ordinary interest to biblical students. Jehu, King of Israel, is seen prostrate before Shalmaneser, who stands erect. Around are various court officials, one of whom is reading from a scroll the items of the present with which the Israelitish king hopes to propitiate his powerful rival. High in the background are two circular figures, in one of which we recognize the emblem of *Ashur*, the national god of the Assyrians. On the margin is inscribed, in quaint arrow-headed characters: "Tribute of Jehu, son of Omri."

THE OVERTHROW OF ASSYRIA, ACCORDING TO A NEW INSCRIPTION OF NABU-NA'ID.—In 1889, in his *Untersuchungen zur alt-orientalischen Geschichte*, p. 63, Hugo Winckler attributed the overthrow of the Assyrians in the year 606 to the Medes. This view, which received some opposition at the time, seems now to be substantiated by the inscription of Nabu-na'id, published in Maspero's *Recueil des travaux rel. à l'archéol. égypt. et assyr.*, vol. XVIII, a translation of which is published in the *Berl. Phil. Woch.*, 1895, No. 45. The portions of the first column which still remain speak of the destruction of Babylon under Sanherib and of his death. The second column relates to the overthrow of Assyria. The two columns read as follows: [The king of Suri= Sanherib] "destroyed her (Babylon) temples and laid waste her sacred lands and buildings. He captured Prince Marduk, brought him to Assyria, and gave over the land to the wrath of the god. Prince Marduk lived eleven years in Assyria. Then followed the time in which the wrath of the king of gods, the lord of lords, was shown. Sagil [the temple of Marduk in Babylon] and Babylon he acquired as

his dwelling. The King of Suri [=Sanherib], who had laid waste the land under the wrath of Marduk, was assassinated by his son. [Column II, Lacuna] He [the god] brought him (Nabopolassar) assistance, held and subjected to his [the god's] command the King of Manda, who had no equal, and ordered him to come to his assistance. In west and east, south and north he ravished everything, as a flood, helped Babylon and plundered. The fearless King of Manda destroyed the temples of all the gods of Suri and the cities of Akkad (Babylon) which were hostile to the King of Akkad and had not supported him; he destroyed their sanctuaries, left nothing remaining, and destroyed them all." Since Manda was the general term for the northeast people, here signifying the Medes, it is evident that Nabuna'id clearly says that the Medes alone brought war against Nineveh, laying waste the section of Babylonia which sided with Assyria.

THE THUNDERBOLT OF THE ASSYRIANS.—In the *Academy* of October 20, 1894, in a notice of my *Flora of the Assyrian Monuments and its Outcomes*, it is stated that: "We have epigraphic authority that the god who carries the thunderbolt is Ramman, the god of the air, whose weapon was the thunderbolt."

Count Goblet d'Alviella, in his review of the same book, in the *Revue de l'Histoire des Religions* (tom. XXX, No. 1, p. 96), says: "J'accepterai parfaitement qu'un façonnant le trident mis entre les mains de Ramman, dieu de l'air et de l'orage, l'artiste Assyrien ait été influencé, consciemment ou non, par sa propre façon de représenter la tige sacrée avec des cornes symboliques. Mais ce n'est pas une raison pour suivre M. Bonavia, quand il en déduit que l'attribut du dieu est une forme reduite de l'arbre sacré—c'est-à-dire une tige ornée d'une paire de cornes—et que par suite, le fondre ou trident redoublé representait simplement chez les Assyriens une double paire de cornes avec la tige sacrée au milieu."

In my researches I put to myself the question: Why has the thunderbolt in Ramman's hand a *straight* middle prong, while the two side prongs are *wavy?* In all the photographs of lightning which I have seen, the thunderbolt is wavy and never straight. Whence does the straight middle prong of the mythological thunderbolt come? The only answer that I could find to my question was that this supposed thunderbolt was copied from a pair of spiral horns tied to a stick, horns having been, from the most ancient times, used as a weapon against the evil eye, and possibly also against all manner of evil spirits.

In studying the genesis of this form of weapon, or charm, it became evident to me that the artist who placed that thunderbolt in Ramman's hand had seen the same thing somewhere else as a weapon of

some sort, independently of thunderbolts; that the figure was so registered in the convolutions of his brain, and that he unconsciously gave it the same form when depicting a god of the tempest. The caduceus in the hand of Mercury appeared to me to be the same thing modified into a pretty form by Greek artists. Mr. Elsworthy, in his recent book on *The Evil Eye*, thinks that Mercury carried the caduceus in his hand as a charm to guard himself, in his flights, against injuries of the evil eye. And I do not think that the zigzag caduceus in each hand of the god has ever been taken for a thunderbolt. So that in spite of there being epigraphic authority that the god Ramman is the god of the air, whose weapon is a thunderbolt, it does not appear to me to follow that the Assyrian or Chaldæan artist did not copy this form of thunderbolt from a previous form which had nothing to do with thunderbolts, but originated in a pair of spiral horns tied to a straight stick, and used as a protection against either the evil eye or connected with some other superstition regarding evil power.—E. BONAVIA, in *Academy*, May 11.

SYRIA.

PHOENICIAN INSCRIPTIONS.—At a recent meeting of the Académie des Inscriptions, M. J. Halévy submitted an interpretation of four inscriptions which have hitherto been imperfectly published and inadequately explained. The first two are Phoenician. One of them relates to the vows made by a dynast at Lapithos, in Kypros, to the god Melkart-Poseidon, on behalf of his father, who is described as being 100 and 102 years of age; the other, which is very fragmentary, belongs to a Phoenician dynast established, at a period still uncertain, in the neighborhood of Zinjirli. Of the other two inscriptions, one is found on a basrelief representing the King Barrekub surrounded by his courtiers and his warriors. It reveals the name of a new Semitic god, Bilharrân. The last, belonging to the same king, records the building of two temples, dedicated to the manes of the kings of Samal, "who will thus be provided," says the text, "with both a summer-house and a winter-house" From this can be learned the extent to which ancestor-worship had developed in Syria by the eighth century B. C.—*Academy*, Nov. 2.

PROF. JENSEN ON THE HITTITE INSCRIPTIONS.—I have just been studying the latest attempt to decipher the Hittite inscriptions, that made by Prof. Jensen in the last number of the *Zeitschrift der Deutschen morgenländischen Gesellschaft* (XLVIII, 2). Unfortunately, I cannot say that it is more successful than those that have preceded it. It is, however, a little difficult to discuss it, as in a note prefixed to his paper the author says that, since his MS. went to press, he has made

so many additional discoveries as to render necessary the correction of whole paragraphs in it. But as I shall not be in England when the next part of the paper appears, I must assume that the basis of the decipherment will remain unchanged.

Like most of his predecessors, Prof. Jensen has trusted too much to the published texts. Only those who (like Mr. Rylands and myself) have had to do with the publication of most of them can have any idea how uncertain is a large part of the published characters. Where the characters are in relief, and we do not know how they are to be read, any obliteration of them makes it quite impossible to determine their forms with certainty. The improved squeezes of the Hamath inscriptions which have recently arrived from Constantinople have shown how very faulty were our previous copies of these texts.

In his discussion of the name which we ought to apply to the inscriptions, Prof. Jensen has forgotten that anthropologists consider the question to be settled by the casts of Hittite profiles made by Prof. Petrie for the British Association from the Egyptian monuments. The profiles are peculiar, unlike those of any other people represented by the Egyptian artists, but they are identical with the profiles which occur among the Hittite hieroglyphs.

As for the chronology of the texts, most of the points brought forward by Prof. Jensen in support of his results are inconclusive. He has not taken into consideration the possibility of local differences in art or in the individual artist, and he is mistaken in supposing that characters in relief are a mark of antiquity in the Egyptian monuments. In fact, a study of Egyptian art would have taught him that, unless we had been able to decipher the inscriptions engraved upon them, the art of the Egyptian monuments would have afforded us a very insecure basis for their chronological arrangement. But Prof. Jensen's strong point is philology, not archæology.

He agrees with me in the age which I should assign to "the boss of Tarkondêmos." But Prof. Hilprecht, our best authority at present on cuneiform palæography, tells me that the cuneiform inscription upon it must be of the age of the Tel el-Amarna Tablets, instead of that of Sargon; and he would read the last two characters of the inscription—which, by the way, has suffered grievous things at the hands of Prof. Jensen—*Me tan*, that is to say, Mitanni.

Prof. Jensen's system of decipherment mainly rests upon two assumptions: (1) that the double obelisk, in which every one has hitherto seen the ideograph of "country," is a mere unmeaning duplicate of the single obelisk, the ideograph of "king," which immediately precedes it; and (2) that the second word in the royal inscriptions which precedes the ideograph of "king" is not the name of the king,

but of the kingdom over which he ruled. The first assumption is against the evidence of the "boss," which, after all, is the only solid fact the decipherer at present possesses, and it is also against common sense. The second assumption is most improbable: I can remember no other case in the ancient East in which a king prefers to give his territorial titles before giving his own name.

Moreover, the territorial names with which Prof. Jensen has identified certain groups of characters are all doubtful. We are not absolutely certain that Jerablûs represents the site of Carchemish; if it is really called Jerabîs, it is more likely to have been Europus. The Hamath king was, I believe, a conqueror, so that there is no reason for supposing that the name of Hamath will occur in the Hamathite texts, and that Mer'ash is the ancient Marqasi is merely a probable conjecture. There is one place, however, the ancient name of which we know. That is Malatiyeh; and a monument, which Prof. Jensen has not seen, has recently been found in the old mound there, with a Hittite text running along over a representation of a lion hunt in the Assyrian style. The inscription is well preserved and complete; but none of Prof. Jensen's values will enable us to find the name of Milid or Malatiyeh in it. On the contrary, a name identical with the second word in the inscription of Mer'ash occurs in it, in a position which I think even Prof. Jensen will admit must indicate a proper and not a local name.

I must pass over the improbabilities of a system of decipherment which finds no proper names, but only territorial ones, on the clay Hittite seals discovered at Kouyunjik, in spite of the fact that the Assyrian, Egyptian and Phoenician seals discovered along with them contain proper names and not territorial ones. Nor need I say anything about the ideograph in which I see the determinative of a deity, while Prof. Jensen believes it to denote a place, although Prof. Ramsay has stated that no one who has seen the monument of Fraktin can reasonably doubt that I am right. Nevertheless, it is upon the assumption that the sign in question represents a place that a good deal of Prof. Jensen's system is built. But I cannot omit to note the improbability that one of the most commonly-used characters should have the consonantal value of *s*. If there are symbols denoting vowels, and Prof. Jensen agrees with me in thinking there are, the doctrine of chances would oblige us to assign to it a vocalic sound.

The fact is that the insufficiency of our materials, and the uncertainty of the reading of much that we possess, make the phonetic decipherment of the Hittite texts impossible. A graphic decipherment of them is another affair; and, thanks to the use of ideographs, I believe I can tell what the general meaning of the inscriptions must

be. But I have long been convinced that we shall never be able to read them until a bilingual text of some length is discovered. That so keen-sighted and well-equipped a philologist as Prof. Jensen should have failed, is but a further proof of the hopelessness of the task. I have tried every combination, possible or impossible, that I could think of; but all in vain. Some of the combinations have given names like Lubarna and Urkhamme, which we actually find in the Assyrian records; but they all rest upon unproved and unprovable assumptions, and sooner or later some new text turns up which shows that they cannot be right. I do not mean to say that Prof. Jensen's paper has been written in vain; he has in it advanced the study of the texts by putting old facts in a new light and establishing new ones. And I believe that he must be correct in the arrangement which he proposes for the Hittite characters on the boss of Tarkondêmos. It suggests the question whether the little line, which we have hitherto supposed to be a word-divider, does not really denote that the word which it follows or precedes is a proper name.—A. H. SAYCE, in *Academy*, Oct. 6, 1894.

THE SO-CALLED HITTITE INSCRIPTIONS.—In the *Zeitschrift der Deutschen morgenländischen Gesellschaft* (Vol. XLVIII, pp. 235–352) I have published the first part of a treatise on the so-called "Hittite" inscriptions. I have endeavored to show that there is no real justification for the use of this term, and have proposed (for certain reasons there enumerated) to call the inscriptions in question by the provisional name of "Cilician." The results of my work may be briefly summarized as follows: (1) The system of writing used in these inscriptions closely resembles the Egyptian system. (2) The meaning of a certain number of signs, representing words or grammatical terminations, has been determined. (3) The inscriptions date from about 1000 to 550 [600] B. C., which is approximately the date assigned to them by such authorities as Ramsay, Hogarth and Puchstein. (4) With the help of certain signs or groups of signs, which I believe to represent proper names—Hamath, Karkemish, Gurgum [?], Cilicia, Tarsus, Tar-BI-BI-ASH-SHE-mè, commonly called Tarkondemos, and a title (Syennesis), I attempted to read several portions. In the *Academy* of October 6 my essay was reviewed by Prof. Sayce, who pronounced it a failure. But since his remarks are liable to mislead the reader as to what I have maintained, it appears to me that I may venture to offer some explanations.

Prof. Sayce endeavors to discredit my decipherment by stating that I have trusted too much to the published texts, but he does not point out a single case in which I have based an interpretation upon a false reading. Nor does he appear to have noticed that on p. 259 of my

treatise I have given a long list of squeezes and casts which I procured for myself because the published texts did not seem to be sufficiently trustworthy. He moreover asserts that, in determining the dates of the inscriptions, I have "not taken into consideration the possibility of local differences in art or in the individual artist." Yet, as a matter of fact, I have clearly and repeatedly admitted that on account of this very possibility my dates are approximate only, my confidence in their general correctness being due to the convergence of two independent lines of proof, *etc., etc.*

Such are some of Prof. Sayce's objections. As to others, the reader may judge by the following example. In inscriptions from Hamath I believed that I had discovered a group of characters forming part of a royal title, and signifying "Hamath"; in inscriptions from Jerabis (which is generally admitted to be in the territory of the ancient Karkemish), a group signifying "Karkemish"; in inscriptions from Mar'ash (which is generally admitted to correspond to the ancient Markash, the capital of Gurgum), a group signifying "Gurgum," or, perhaps, "Markash"; in inscriptions which, according to my decipherments, were set up by kings of Cilicia, a group signifying "Tarsus," a sign for "Cilicia," and a group representing the royal title, "Syennesis." These readings mutually confirm one another to such an extent that they must be regarded as justifying my conclusions, unless some irrefutable argument can be urged on the other side. Moreover, he completely ignores the fact that, assuming my decipherment to be correct, I have made out among the titles of kings mentioned in later inscriptions the graphical expressions for "king of Tarsus," "king of Cilicia," and "Syennesis" (which, according to very many scholars, was the title of the Cilician kings). Nor does Prof. Sayce mention (1) that the groups of signs which I have explained as representing the aforesaid names mutually confirm one another in the clearest manner; (2) that even if I had wrongly explained certain groups my readings might still be correct, since some phonetic values have been derived by me from several groups at once; (3) that my interpretation of a certain group as signifying "Karkemish" is strongly supported by the fact that the group in question contains, in the proper place, a sign which Prof. Sayce himself had explained (rightly, no doubt, though on erroneous grounds) as representing *me* (*mi*).—P. JENSEN, in *Academy*, Dec. 1, 1894.

PERSIA.

PERSIAN CASTS IN THE U. S. NATIONAL MUSEUM.—In the report of the United States National Museum, Cyrus Adler writes on *Two Persepolitan Casts in the United States National Museum*. In 1892, the Hon.

Truxton Beale, U. S. Minister to Persia, announced that he had obtained permission from the Persian government to remove some objects from Persepolis for the United States National Museum. Such transportation seemed impracticable, but when he arrived at Persepolis he found Mr. Blundell engaged in taking moulds of basreliefs and cuneiform inscriptions for the British Museum. One of them was presented to Mr. Beale and shipped to Washington. These two moulds are the first ever taken of Persepolitan inscriptions. This inscription is from the west staircase of the palace of Artaxerxes, and, although published in foreign journals, a translation of it is here given:

"A great god is Auramazda, who created this earth, who created that heaven, who created mankind, who gave prosperity to mankind, who made me, Artaxerxes, king, the sole king of multitudes, the sole ruler of multitudes.

"Thus speaks Artaxerxes, the great king, the king of kings, the king of countries, the king of this earth. I am the son of King Artaxerxes, Artaxerxes (was) the son of King Darius, Darius (was) the son of King Artaxerxes, Artaxerxes (was) the son of King Xerxes, Xerxes (was) the son of King Darius, Darius was the son of (one) named Hystaspes, Hystaspes was the son of (one) named Arshama, the Achaemenide.

"Thus speaks the King Artaxerxes: 'This structure of stones I have built for myself.'

"Thus speaks the King Artaxerxes: 'May Auramazda and the god Mithra protect me, and this land, and what I have made.'"

The other cast is a relief of a royal body-guard, probably one of the ten thousand immortals described by Herodotos. The figure resembles in general the figures on the frieze of enameled bricks found by Dieulafoy at Susa, a colored cast of which is in the Metropolitan Museum of Art in New York.

A BILINGUAL HITTITE SEAL.—The *Times* of September 24 devotes a column and a half to the description of a Hittite seal recently acquired by the British Museum. Besides figures with pig tails and the symbol of the equilateral triangle, it bears an inscription which seems, though nearly effaced, to have been written in Kypriote characters. All the other known bilingual Hittite objects have had cuneiform inscriptions.—*Academy*, Sept. 28.

KADESH.—At a recent meeting of the Académie des Inscriptions, M. Philippe Berger submitted a report on the excavations made by M. E. Gautier to determine the site of the ancient Kadesh. Two spots in the valley of the Orontes contest the possession of this city: the tumulus which now bears the name of Tell Neby Mindoh, on the spurs of Lebanon, near the lake of Homs, and an island situated in the middle of this lake. M. Gautier commenced on the lake of Homs. He carried with him two boats that were capable of being taken to

pieces, established himself in the island, and explored the tumulus which occupies the centre of it. Unfortunately the results were negative, leading only to the conclusion that Kadesh was not built on the present site of the lake of Homs. But M. Gautier's excavations resulted in his discovering in the island traces of a series of buildings, one above the other, going back from the Byzantine epoch to the neolithic age; passing through the Graeco-Phoenician period, marked by walls of elaborate construction, and the age of bronze, which has left in evidence an entire series of tombs, containing numerous instruments of great interest.—*Academy*, August 24.

INSCRIPTION FROM DJERACH. — The Louvre has recently become enriched by a valuable Greek inscription from the neighborhood of Djerach, in Syria, containing portions of an ancient law concerning the maintenance of vineyards and their protection against thieves. The region beyond the Jordan was from all antiquity and up to the times of the Arabian geographers famous for the abundance of its grapes.—*Athenæum*, July 13.

KYPROS.

THE CESNOLA ATLAS OF KYPRIOTE ANTIQUITIES.—After nine years another volume has been issued by General Di Cesnola and the Metropolitan Museum, also containing 150 large plates, in five parts, with 1,110 figured objects. This volume is entirely given to pottery from various parts of Kypros, some of it of an antiquity that may be 2000 B. C., while other objects come down to a middle or late Greek period. Of some styles in which the Museum is very rich, but a small proportion of the vases or other objects could be selected for the photogravure or the colored lithograph, and many are omitted that one would be glad to see, if the world were large enough to contain all the plates that might be made; but no fault can reasonably be found with the selection. The most important are all included, and the artistic work is excellently done, while the descriptions are sufficiently full and accurate, although they enter very slightly, if at all, upon the critical task of assigning dates and making comparisons with similar or different pottery found elsewhere. This critical task is left to Dr. Murray, the learned keeper of the Greek antiquities in the British Museum, who supplies a very valuable introduction.

The terra-cotta figurines and heads came from two sorts of places; in general, tombs and temples. Dr. Murray discusses chiefly the former. For the latter two places may serve as typical, the temple at the Salines, whence came the Greek statuettes and heads of plates XLVIII to LV; and the other, the relics of the temple of Apollo Hylates, near Kourion. The date of the latter is uncertain, but probably earlier

than the former. The figurines well illustrate the religious dance of women about a central Aphrodite, and the playing on various musical instruments. The pictures of active life supplied in these terra-cottas is very extensive.

The series from plates XLVIII to LV furnish many illustrations of the worship of various goddesses, of which there are scattered notices all through the classics. This series all came from or near the temple near the Salines—either the temple or the place where the accumulated offerings were buried by the priests—and the date is well fixed by the Phoenician inscriptions from the other temple, early fourth century B. C. Many of the objects are artistic, beautiful, and Greek.

Turning now from the work of the early coroplast and his human figures in terra-cotta to what is more strictly the potter's ware, we have to recall that since General Di Cesnola opened the treasures of Kypros to the world, a number of very careful excavations have been made in Kypros by trained archæologists. In 1885 M. Dümmler spent some months there, devoting himself chiefly to those cemeteries where the oldest known forms of vases had been found, as at Alambra, Leukosia and Kythera. His conclusion was that these cemeteries belonged to a people that lived at a date earlier than 2000 B. C., who were probably of a Semitic race and certainly pre-Phoenician. This is very early. The question is a very large one, and the date of the pottery of the Mykenai type found all over the insular and littoral region is much sought for. As W. Max Müller says in his "*Asien und Europa nach altaegyptischen Denkmälern*," sufficient attention does not seem to have been paid to the evidence to be drawn from the Egyptian monuments. These styles of pottery have been found in Egypt and are figured in monuments in the time of Thothmes III. They came from the land of *Kefto*, which seems to have indicated Kypros and the Cilician coast, and to have been possessed by the early "Hittite" population of Southern Asia Minor before the Phoenicians. Among the types represented in paintings in Egyptian tombs of about 1600 B. C., and said to have come from Kefto, are pottery vases with the marked Mykenæan scale pattern (several examples), a number with the very characteristic bands of spirals, sometimes covering an entire vase (not the derived rope pattern so common in Hittite glyptic art), and the bands of rosettes. Here we have a definite date given us for certain styles, although we do not know how long they may have prevailed before and after. These figures, however, are numerous enough to show, perhaps, to a skilled archæologist what styles were passing out of use and what were the newer forms of decoration as they are found in earlier and later tombs or layers in such composite mounds as that at Hissarlik, which has been lately so very care-

fully studied, or at Santorin, Thera or Ialysos. The vase, pl. xc, No. 775, has a Kypriote inscription in characters of early form, adding confirmation to the very early date of this pottery. It is a Mykenæan pseudamphora of a short-lived fashion.

The vases with incised patterns, in squares and checkerboard designs, seem to be the earliest, and to have continued down to perhaps 2000 or even 1500 B. C.; these were followed, probably, by a style of light yellowish gray or buff ware, ornamented in much the same pattern, but no larger incised. The figures are in clear black, and show very sharp on the light ground, giving us a style of ware very marked and not really to be found elsewhere. Thus far there has been no use of the potter's wheel, although the wheel had long been known in Egypt. It is an interesting fact that the ware buried in the graves of the newly-discovered "Amorite" people, found by Dr. Petrie, also made no use of the wheel. The Cesnola collection is very rich in both these styles of pottery, the incised and the black on light buff; and we may observe that one specimen of the latter (fig. 761), has the whole broad neck covered with the scale pattern of the Mykenai ware, although it is probably of earlier date.

The Cesnola collection is also very rich in the Mykenæan type; but we must not delay over them, but must come to the great vase of the type called "Dipylon," which is, perhaps, a little later, although perhaps older than 1000 B. C. The Metropolitan Museum possesses the finest specimen of this ware known, an immense vase, which will strike the eye of every visitor to the Museum, and which is here admirably reproduced. It is nearly four feet high and two feet wide at the greatest bulge, is of a light salmon-colored ware, and was found in the temple vaults of Kourion. It has a high cover, and it is completely covered with bands of ornamentation. One of these is a series of horses feeding, in a sort of frieze, encircling the vase in its broadest part, above which is a series of designs of horses, deer, birds, *etc.*, all arranged in square metopes, so to speak, which remind Dr. Murray of the adornments of the Assos temple, so that he is inclined to bring it down to somewhere near 700 B. C., a rather late date. It is very likely that this magnificent vase, than which no museum has a greater treasure, was imported from Athens. The animal figures show the budding out of the Greek freedom, while the rest of the vase, with its checker-work, its bands, its rosettes, its circles of dots and its wavy spirals (here corrupted to concentric circles, although Perrot, with no authority whatever, makes them spirals), show the old, inelastic Oriental influence. Large and small pieces of this Dipylon style have been found in the Greek islands and a few on the mainland. The Ialysos specimens in the British Museum, found after Cesnola had left Kypros,

together with one or two specimens in France, are the nearest representatives.

Another style of vase, of purely Kypriote origin and prevalence, deserves special attention, as it is very curious and is grandly illustrated in these plates, although not a few specimens fail to appear for lack of room, some of which we should have been glad to see. This is what Dr. Murray calls "Kypro-Phoenician." They are generally big-bodied pitchers, and are covered with birds, animals, lotus-plants or other flowers, and human figures. Sometimes a band of rosettes, or of angles apparently meant to simulate an Assyrian inscription, or a guilloche (rope pattern) appears drawn directly across the body of a goat or a goose, with curious *naïveté* of composition. There are at times strangely composite lotuses, and especially a sort of Assyrian sacred tree with an animal or bird on each side in symmetrical heraldic attitudes. According to Dr. Murray these are marks of an active and originative Phoenician influence. Whether he does not attribute too much to Phoenician influence is a matter of doubt, unless he means to class as Phoenician all the influence which came to Kypros, after pervading the whole of Southern Asia Minor and Northern Syria from Assyria by way of the Hittites.

Of the lamps, a number are peculiarly Kypriote; and one class bears the same inscription on the bottom, more or less abbreviated. The top is in various designs or patterns. All have two air-holes. Some classes of lamps have been made from the earliest times down to the present day. Their date and nationality have, of course, been determined from the character of the tomb in which they were found. Other of the lamps are of the Græco-Roman origin and imported into Kypros. Of these many bear their maker's mark; and such are known to have been made in Italy—mostly in the Greek cities. Similar lamps, by the same makers, are found all over the east Mediterranean coast and islands.

Of the amphoræ, one with cursive Greek writing shows that the cursive Greek was many centuries older than had been supposed. The same thing, however, is proved from the Egyptian potsherds, though showing a different kind of cursive. The Rhodian amphoræ have the excise stamp—eponym and name of Doric month—on the handle.

The immense interest now taken in the history of early terracotta and pottery gives promise of the early solution of the outstanding problem of the age and succession of the more ancient varieties. We have already learned that there must have been a very early commerce, if not thalattocracy, which distributed favorite designs all over the coast of the eastern Mediterranean. It is a matter of great con-

gratulation that for one of the centres of this manufacture and distribution the Metropolitan Museum possesses an unequalled series of numerous and excellent specimens, and we are very glad to see them so worthily published. We hope we may not have to wait nine years for the concluding volume, which will contain the jewelry and other minor objects, with the Kypriote, Phoenician and Greek inscriptions. —*Independent*, May 9.

METROPOLITAN MUSEUM.—Handbook No. 2 of the Metropolitan Museum concerning *The Terracottas and Pottery of the Cesnola Collection of Cypriote Antiquities*, has made its appearance. A catalogue, to be of service to the general public, must necessarily be brief, especially when, as in the present case, it has to deal with 1650 terracottas and 2004 specimens of pottery. But we miss in this handbook any evidence of classification and of such guidance as would assist a visitor to the museum to obtain a general view of the succession of styles. Even with this handbook in hand the visitor will be lost in a multitude of specimens. Handbook No. 3 treats of *The Stone Sculptures of the Cesnola Collection*. More than 1800 objects are here noted with the same lamentable lack of classification. It is unfortunate, also, that the numbering of objects in these handbooks is different from that in the Atlas of the Cesnola Collection.

AFRICA.

CARTHAGE.

PUNIC TOMBS.—Père Delattre is continuing his exploration of the Punic necropolises of Carthage, and has already examined in detail the contents of 125 tombs. Two of them are remarkable. One is a mask in painted terracotta of peculiar type and shape of the beard. The face is oval, and has on the cheeks short whiskers, the chin being closely shaven; the hair is thick and crisp, and covers the forehead in a straight line; the eyes have black pupils, and the color of the skin is a deep red. The mask is moreover adorned with bronze earrings in the shape of simple rings. The other object is a disc of terracotta about ten centimetres in diameter, with a relief representing a warrior on horseback galloping towards the right. He wears a helmet with lofty crest, and carries a lance and a round shield ornamented with concentric circles. Beneath the body of the horse is seen a dog, also running towards the right, and in the field of the medallion is on the right a lotus flower, and on the left the crescent moon with the horns rising and embracing the disc.—*Athenæum*, Aug. 10.

THE PHOENICIAN TANIT AND THE GREEK DEMETER.—At a recent meeting of the Académie des Inscriptions, M. Clermont-Ganneau read

a paper upon the goddess Tanit and the worship of Demeter and Persephone at Carthage. He attempted to explain the historical origin of the goddess-mother Amma or Emm, whose existence is proved by three inscriptions recently discovered at Carthage. In one of these she is found associated with another goddess, Baalat Ha-Hedrat, forming a mythological pair which has no analogy in the Phoenician pantheon. By a series of ingenious inferences, M. Clermont-Ganneau arrived at the conclusion that this pair of goddesses represents the familiar Greek pair of Demeter and Kore. His main argument was drawn from a passage in Diodorus Siculus, which states that the worship of Demeter and Persephone was adopted by the Carthaginians in 397 B. C., after their disastrous campaign in Sicily. Two other Phoenician inscriptions at Carthage expressly identify this foreign goddess-mother with Tanit Pené-Baal, who occupies an important place in Carthaginian religion. It appears, therefore—paradoxical as it may sound—that the Phoenician Tanit was assimilated to the Greek Demeter. This is supported by the fact that the most ancient coins of Carthage reproduce the head of Demeter, which is characteristic of the coinage of Sicily. It is also probable that the cult of the African Ceres, which conceived so great a development after the Roman conquest, is due to the same identification of Tanit with Demeter.—*Academy*, Aug. 17.

EUROPE.

GREECE.

AMERICAN SCHOOL AT ATHENS.—The fourteenth annual report of the Managing Committee of the American School at Athens reports the receipts of the year as $10,135.42, including a balance of $871.76 brought over from last year. There is carried over to the coming year a balance of $2,051. The Argive excavations cost during the year $1,700, and those at Eretria $500.

The report says that Dr. Charles Waldstein will not be compelled to sever his connection with the school on account of his election to the Slade Professorship of Fine Arts at Cambridge, England. Closer connection of the school with the Archæological Institute is urged, as well as nearer affiliation with the new School at Rome, and the suggestion is offered that the Institute should take part in the actual control of the school. With this aim in view the chief executive officer of each of the three bodies has been made a member of the other two, and the spring meetings of the three have been appointed for New York City, and near together in time. The total cost of the Argive excavations during the four years has been between $11,000 and $12,000.

Changes have been made in the regulations of the school in line with the suggestions of Prof. White. The term of residence of students in Greek lands is lengthened by two months, but, with the consent of the director, two of the ten months required may be spent at the Roman School. The executive committee has been enlarged so as to accord more closely with that of the school at Rome.

The report of Director R. B. Richardson reviews some of the discoveries of the year. At Kukunari he describes the stonework as having one surface roughly tooled with parallel oblique marks similar to that on certain stones of the Wall of Themistokles by the Dipylon Gate at Athens, and also on some old stones of the Asclepieion, indicating that the stones had come from some ancient walls near by. There were found also fragments of native reliefs, including a horse's head, a part of a span of horses, a seated female figure on an elaborate chair of excellent workmanship, and several female figures suggesting that at that point was the deme of Hekate, and the theme that of Hekate entertaining Theseus. Other discoveries were eight cisterns, the floor of a wine-press, the sacrificial calendar heretofore described, and fragments of tile, all suggesting a deme of considerable magnitude and importance. The calendar Director Richardson considers of great importance, and it has been made the subject of much fuller discussion (see JOURNAL, Vol. x, No. 2). It prescribes the bringing of offerings at certain dates, the prices of victims, and the names of many deities, some not yet known. As a result of its value, work will be resumed at the spot where it was found.

The Eretrian excavations brought to light a room with pebbles laid in cement, on which rested the tanks described in last year's report; a gymnasium 150 feet square, and a number of inscriptions, one forty-nine lines long. Among sculptures found were: (1) An archaistic head of the bearded Dionysos, preserved practically entire; (2) the upper part of a head which fitted a lower part in the Eretria Museum, and made a very good portrait head, and (3) the right upper part of a head, probably of a youth, of good workmanship and belonging to a good period. Among minor objects were a mask of Pan's head and two silver coins with a wreathed head, perhaps Herakles, and on the reverse a trireme on water. In digging a cellar opposite the Royal Palace on Kephissia Street were found a Roman relief containing a male figure of about life-size, a fine work; also a female figure fifteen inches high, with an inscription (see JOURNAL, Vol. x, No. 4).

The library now contains more than 2,400 volumes, exclusive of sets of periodicals. It includes a complete set of Greek classics and the most necessary books of reference for philological, archæological, and architectural study in Greece.—*Evening Post*, Nov. 7.

The managing committee of the American School at Athens announce that at their last meeting Dr. Charles Waldstein, of King's College, Cambridge, was reëlected Professor of the History of Art for the year 1896-97, and Prof. Herbert Weir Smith, of Bryn-Mawr College, was invited to serve as Professor of the Greek Language and Literature for the same year. Prof. Abraham Lincoln Fuller, of Western Reserve University, was elected to the latter chair for the year 1897–98. Plans are under discussion by the committee for lengthening the school year and elevating the standard of archæological study.—*Evening Post*, Nov. 19.

FELLOWSHIPS AT THE AMERICAN SCHOOLS AT ATHENS.—The Committee on Fellowships has issued the following circular:—

In the spring of 1896, the Managing Committee will award two Fellowships in Greek Archæology, each of the value of $600, to be held during the school year 1896–97.

These Fellowships are open to all Bachelors of Arts of Universities and Colleges in the United States. They will be awarded chiefly on the basis of a written examination, but other evidence of ability and attainments will be considered.

This examination will be conducted by the Committee on Fellowships, with the assistance of other scholars. It will be held on Thursday and Friday, May 21 and 22, 1896, at Athens, Greece, in Berlin, Germany, and in America at any College that a candidate may select of the institutions which co-operate in support of the School. The examination will continue during three hours in the morning, and two in the afternoon of each day.

Each candidate must announce his intention to offer himself for examination. This announcement must be made to the Chairman of the Committee on Fellowships, Professor John Williams White, Cambridge, Mass., and must be in his hands no later than April 1, 1896. Its receipt will be acknowledged, and the candidate will receive a blank to be filled out and handed in by him at the time of the examination, in which he will give information in regard to his studies and attainments. A copy of this blank may be obtained at any time by application to the Chairman of the Committee on Fellowships.

Candidates are referred to the Regulations of the Managing Committee for the requirements which must be fulfilled by the Fellows of the School.

The award will be made as soon after the examination as practicable. Fellows of the School are advised to spend the summer preceding their year at Athens in study in the Museums of Northern Europe.

The examination will cover the subjects named below. The num-

ber of hours during which the examination in each subject will continue is stated just after the title of the course. The examiners are aware that some candidates will not have access to large libraries. They have, therefore, specified under each subject the books which they think the candidate could use to the best advantage. The examination will be based on the books specially named. Other books are recommended for supplementary reading and reference. For additional titles, candidates are referred to the "List of Books Recommended," which is published annually in the Report of the Managing Committee. In this list will be found the full title of each book named below, its price, and the name of its publisher.

The examiners are aware also that many candidates will not have easy access to collections in Museums. They nevertheless urge that each candidate should strive to make his study of the special subjects in Greek Archæology named below as largely objective as possible, by the careful inspection and comparison of monuments of Greek art, in originals if possible, otherwise in casts, models, electrotypes, photographs, and engravings.

MODERN GREEK.—An introduction to the study of the language. *One hour.*

Vincent and Dickson, *Handbook to Modern Greek;* and either Rangabé, *Practical Method in the Modern Greek Language*, or Mrs. Gardner, *Practical Modern Greek Grammar.* Constantinides, *Neo-Hellenica;* and Jannaris, *Wie spricht man in Athen?*

The examination will test not only the candidate's ability to translate the literary language into English, but also his knowledge of the common words and idioms of the every-day language of the people.

THE ELEMENTS OF GREEK EPIGRAPHY. *Two hours.*

Roberts, *Introduction to Greek Epigraphy;* and Dittenberger, *Sylloge Inscriptionum Græcarum.*

Supplementary: Newton, *On Greek Inscriptions*, in his *Essays on Art and Archæology.*

Reference: Kirchhoff, *Geschichte des griechischen Alphabets;* Larfeld, *Griechische Epigraphik*, in von Müller's *Handbuch der Klassischen Altertumswissenschaft*, I.; Reinach, *Traité d'Epigraphie grecque;* Hicks, *Manual of Greek Historical Inscriptions;* and the *Corpus Inscriptionum Atticarum.*

INTRODUCTION TO GREEK ARCHÆOLOGY. An outline of the origin of Greek art, and the elementary study of Greek architecture, sculpture, and vases, with some attention to terracottas, numismatics, glyptics, bronzes, and jewels. *Two hours.*

Collignon, *Manuel d'Archéologie grecque*, translated by Wright, *Manual of Greek Archæology;* and Murray, *Handbook of Greek Archæology.*

Supplementary: Müller, *Ancient Art and its Remains.*

Reference: The works cited by Collignon and Wright; Sittl, *Archäologie der Kunst*, in von Müller's *Handbuch*, VI.; and the appropriate articles in Baumeister, *Denkmäler des klassischen Alterthums*, under "II. Kunstgeschichte," in the Systematisches Verzeichniss at the end of the work.

GREEK ARCHITECTURE, SCULPTURE AND VASES. *Three hours.*

A. *The Principles of Greek Architecture*, with special study of the structure of the Erechtheion.

Durm, *Baukunst der Griechen*, in his *Handbuch der Architektur*, II. 1; and Fowler, *The Erechtheion at Athens*, in *Papers of the American School at Athens*, I.

Reference: Reber, *Geschichte der Baukunst im Alterthum;* Lübke, *Geschichte der Architektur.* For the Erechtheion, see the bibliography in Fowler's article, and the article *Erechtheion* in Baumeister, *Denkmäler.*

B. *The History of Greek Sculpture*, with special study of the still extant sculptures of the Parthenon.

Mrs. Mitchell, *History of Ancient Sculpture;* Overbeck, *Die Antiken Schriftquellen*, Nos. 618–1041 and 1137–1640; and Michaelis, *Der Parthenon.*

Reference: Overbeck, *Geschichte der Griechischen Plastik;* Collignon, *Histoire de la Sculpture grecque;* Furtwaengler, *Masterpieces of Greek Sculpture;* and Friederichs-Wolters, *Gipsabgüsse antiker Bildwerke.* For the sculptures of the Parthenon, Smith, *Catalogue of Sculpture, British Museum*, I., with the series of photographs of the Parthenon sculptures published by the London Stereoscopic and Photographic Company.

C. *Introduction to the Study of Greek Vases.* Von Rohden, *Vasenkunde*, in Baumeister, *Denkmäler;* and Robinson's Introduction to the *Catalogue of Greek, Etruscan, and Roman Vases*, in the Boston Museum of Fine Arts.

Reference: Rayet et Collignon, *Histoire de la Ceramique grecque.*

PAUSANIAS AND THE MONUMENTS AND TOPOGRAPHY OF ANCIENT ATHENS. *Two hours.*

Pausanias, Book I. Lolling, *Topographie von Athen*, in von Müller *Handbuch*, III., Milchhöfer, *Athen*, in Baumeister, *Denkmäler;* and Milchhöfer, *Schriftquellen zur Topographie von Athen*, in Curtius, *Stadtgeschichte von Athen*, pp. lxv–xciii, E–G.

Supplementary: Miss Harrison, *Mythology and Monuments of Ancient Athens.*

Reference: Curtius, *Stadtgeschichte von Athen;* Wachsmuth, *Die Stadt Athen im Alterthum;* and Jahn–Michaelis, *Pausaniæ Descriptio Arcis Athenarum.*

THE GERMAN SCHOOL AT ATHENS.—At the January meeting Mr. S. Lampros explained the topography of ancient Pherai according to the plan of Velestinos published by Rega in 1797, and his own observations recently made upon the place. The ancient city lay around the spring Hypereia (a stream most dear to the gods according to Sophokles) even to-day still assuming the form of a shallow lake, 40 metres long and wide, but extending more toward the Turkish settlement. The Christian settlement, deserted long ago, presents close at hand a plain for archæological researches upon the basis of the plan of Rega. Those called by Rega "spetia of the kings" are walls 80 metres long and preserved to a height of two or three metres. The fortresses of the city were directed against the cities which were rivals of the tyrants of Pherai, Larisa and Kranon, and in front of them the bed of the torrent forms a kind of ditch.

Dr. Doerpfeld spoke in reference to the demes in ancient Athens and the country around. It is well known that in connection with the ten tribes there were in the city and around it the following demes in regular order:

ἡ Ἀγρυλὴ MA (*sic*) across the Ilissos, belonging to the first or Erechtheid tribe.

ἡ Διόμεια, belonging to the second or Aigeid tribe. The deme τῶν Κυδαθηναιέων near the Akropolis, belonging to the third tribe, the Pandionid.

οἱ Σκαμβωνίδαι, where many foreigners dwelt, belonging to the fourth tribe, the Leontid.

ὁ Κεραμεικός, belonging to the fifth tribe, the Akamantid.

οἱ βουτάδαι, near the Sacred Way, belonging to the sixth tribe, the Oineid.

ἡ Μελίτη (upon the Pnyx and the Kolonos pertaining to the Agora), belonging to the seventh tribe, the Kekropid.

ἡ Κοίλη (καὶ ὁ Πειραιεύς) westward of the Akropolis, belonging to the eighth tribe, the Hippothontid.

τὸ φάληρον (for about half of its extent somewhere near the present railway (tram) leading to it), belonging to the ninth tribe, the Aiantid.

Finally ἡ Ἀλωπεκή, belonging to the tenth tribe, the Antiochid. In reference to the position of the other demes the accounts agree except some ambiguity in regard to the Skambonidai. The Alopeke commonly placed at the modern Ampelokepoi it is necessary to change to the south of the city. Already Mr. Andreas Skias, starting from the well known passage in the beginning of the Axiochos of Plato, has placed the Kynosarges more toward the Ilisos.

Dr. Doerpfeld reviewing the evidence of recent discoveries finds that the Alopeke, 'distant from the walls eleven or twelve stadia,'

according to Aischines lay near the Kynosarges and wholly in the direction of the Ilissos, southward of Athens upon the little hills upon the last of which stands the now deserted windmill, along the road to Koutsopodi. Thus only is it possible to explain the turning back of the soldiers from the plain of Marathon and their formation on a line where they could see the Persians threatening a disembarking at Phaleron, as also the position of the tomb of Anchimolos and the remaining things pertaining to the Kynosarges and the Alopeke.—*Hestia*, Feb. 19.

REPORT OF THE GERMAN INSTITUTE.—The *Arch. Anzeiger*, 1895, pp. 89-94, contains a report of the activity of the k. d. Arch. Inst. for the year 1894–95. This records the progress of the numerous publications of the Institute, the meetings and excursions of the Roman and Athenian divisions, the loss of old and election of new members. The same number, pp. 136–138, contains *news of the Institute* giving more details of the latest doings.

ARCHÆOLOGICAL SOCIETY OF BERLIN.—The *Arch. Anzeiger*, 1895, pp. 102-126, contains reports of the meetings of the Archæological Society in Berlin. Similar reports are contained in the *Berl. Philol. Wochenschr.* and elsewhere. *February.* Dahm spoke of weapons found in the Limes-excavations, and described the changes in the Roman *pilum* from the fourth century B. C. to the fourth century of our era. A discussion by G. Sixt of an Epona-relief of the Stuttgart lapidarium was read (cut). Conze spoke briefly of the fragment of an alabaster vase from Naukratis (*Arch. Anz.*, 1894, p. 74). Schäffer described the ancient city at Boghasköi in Asia Minor, identified with Pteria. Puchstein spoke of the altar at Olympia. *March.* Kekulé read a letter from Count Prokesch showing that the "Plato-relief" suspected by Prof. Robert was found by his father near Athens on the road toward Eleusis. Adler discussed the altar at Olympia. A paper by Curtius was read on Athens and Delphi, discussing two Delphic inscriptions (*Bull. de corr. hell.*, 1894, p. 87 and 91 ff.). Belger spoke on the Enneakrunos problem and the latest attempts at its solution, maintaining that the Enneakrunos was where the modern Kallirhoe is, near the Olympieion. Kern exhibited Hermann's plan of Magnesia, and spoke of the excavations there. *April.* Koepp spoke of J. A. Evans' discovery of two systems of writing in the "Mykenæan period." Assmann spoke on the question "To what nation the ships on the Dipylon-vases belong," deciding in favor of the Phœnicians. Curtius spoke on fragments of a polychrome Attic lekythos (Jahrb., 1895, pl. 2, p. 86 ff). Brueckner spoke of the prehistoric architectural monuments preserved on the island Gha in lake Kopaïs. Curtius objected to the name Avne given by Noack to the city on Gha. *May.* Herrlich

spoke of new discoveries at Pompeii (illustration of painting representing the death of Dirke). Winter spoke of Relations between Terracottas and paintings (2 cuts) showing that terracottas sometimes represent figures and even whole groups from paintings. Koepp spoke of the Great Battle-monument at Pergamon.

ARCHÆOLOGICAL DISCOVERIES IN 1894.—The *Arch. Anzeiger*, 1895, pp. 94–100, contains a review of the more important *Archæological Discoveries in the Year 1894*. As the JOURNAL has attempted to give this news in another form, it suffices to call attention to this review, adding that cuts are given (after Homolle, in *Gazette des Beaux Arts*, 1895) of a metope from the treasure-house of the Athenians and two pieces of frieze from the treasury of the Siphnians at Delphi.

ARCHÆOLOGICAL COURSES IN GERMANY.—The *Arch Anzeiger*, 1895, pp. 134–135, gives a report of archæological courses in connection with gymnasia in Berlin, Munich, Dresden, Bonn, Trier, and Innsbruck.

PHOTOGRAPHS OF GREEK ARCHÆOLOGICAL SUBJECTS.—The *Archæologischer Anzeiger* (1895, pp. 55–69), contains a list of photographs for sale by the German Institute in Athens.

BERLIN MUSEUM ACQUISITIONS.—In the *Arch. Anzeiger*, 1895, pp. 126–134, A. Furtwängler continues his report of acquisitions of the Berlin Antiquarium. Seventy-one terracottas (11 cuts), nine entries (some of several pieces) under "precious metals and gems," and seven entries under "miscellaneous" are described. The greater number of terracottas are Greek from early date to the third century B. C. Nearly all the terracottas from Italy are reliefs.

AMPHORA FROM MELOS.—In the *Eph. Arch.*, 1894, pp. 225–238, K. D. Mylonas discusses a *Terracotta Amphora from Melos* (pls. 12, 13, 14). This is a Melian amphora 1.025 M. in height, now in the National Museum in Athens. There is much geometrical ornament with oriental forms, as is usual in vases of this class. The ground is yellow. The colors used are browns, black, and violet. The neck is divided into four panels. In one is Hermes, with wings on his feet, standing opposite a richly dressed woman. The opposite panel is filled with an ornament of volutes and palmettes. Between these panels are smaller panels each with a sphinx between squares of checkerboard patterns. On one side of the main body of the vase are two riderless horses facing each other. On the opposite side Herakles is carrying off a woman in a four-horse chariot. Besides the horses stands a woman, and behind the chariot a man. The scene is interpreted as Herakles carrying off Iole, though the representation disagrees with the accounts of Hyginus and Apollodorus. Between these two panels is a pair of eyes over which are the handles curved as eyebrows, and below a palmette and volute.

GREEK VASE BY PHINTIAS.—In the *Jahrbuch d. k. d. Arch. Inst.*, 1895, pp. 108–113, F. Hauser discusses *A Greek Wine-cooler in the Bourguignon Collection* (*Ant. Denkm.* II, pl. 20, Klein, *Lieblingsnamen*, p. 65 No. 4, Hartwig, *Jahrb.*, 1892, p. 157). The scene is in the palæstra. Epheboi and their teachers are represented. Among the names of the epheboi are Phaÿllos, Sostratos, and Philon, while a teacher is Eudemos. These names show that the vase is of the time of Euthymides, but the style is more advanced than his. Comparison with the stamnos, *Journ. of Hell. Stud.*, 1891, pl. 22 (Hartwig, *Meisterschalen*, p. 185) shows that the artist of the Bourguignon vase is Phintias.

LEKYTHOS IN THE BERLIN MUSEUM.—In the *Jahrb. d. k. d. Arch. Inst.* (1895, pp. 86–91), E. Curtius publishes *Fragments of a Polychrome Lekythos in the Berlin Museum* (pl. 2; cut). The fragment represents the upper part of a grave-stele. Before the stele sits a woman, no doubt the deceased. At the right stands a youth, at the left a woman. As an akroterion at the top of the stele is a group of Thanatos (bearded) and Hyknos bearing a female form between them. Twisted volutes serve as a partial background for this group. The publication is accompanied by observations on the history of the development of the lekythos and of the akroterion.

THE HOMERIC ILION.—In the *Eph. Arch.*, 1894, pp. 237–242, G. Nikolaides publishes a Supplementary Note on the Homeric Ilion, in which he maintains his previous (*Eph. Arch.*, 1894, Nos. 2 and 3), opinion that Bunarbaschi, not Hissarlik, is the site of Troy. He is confirmed in this belief by Dr. G. Autenrieth, who suggests that the lower part of the well-known silver relief from Mykenai, representing fragments of three boats and an oarsman, shows that the scene is the banks of the Skamander.

AETOLIA.—At the close of last year the papers announced the discovery of a bronze helmet, which deserves mention on account of the locality where it was found, a spot about six miles north of the village of Krikella, in Eurytaria, in a row of heights which, on account of the quantity of human bones strewn about, is called by the modern Greeks Kokkalia. It is believed to be the place where in 279 B. C. 40,000 Gauls under Combutis and Orestorius were defeated by the Ætolians, and more than half of them killed. After his unsuccessful fight at Thermopylæ, Brennus ordered these two leaders to push through Thessaly into Ætolia in order to force the Ætolians, who were fighting at Thermopylæ in the ranks of the united Greek armies, to return to the defence of their homes. Combutis and Orestorius first fell upon the town of Callium and destroyed it, butchering the inhabitants in inhuman fashion. A pitched battle in which they suffered the terrible loss of which Pausanias speaks is not, however,

mentioned by that writer; it is rather to be inferred from his description that the great losses of the Gauls at the hands of the Ætolians and their women were incurred on the line of march from Callium into the interior of Ætolia. At any rate, it would be desirable that the legend of an encounter at Krikella, on the heights of Kokkalia, should be scientifically examined.—*Athen.*, Aug. 3.

ATHENS.—THE PARTHENON.—I have already informed the readers of the *Athenæum* that, in consequence of the severe shocks of earthquake which were felt in Greece in the spring of last year, several of the ancient and mediæval monuments sustained injuries which seem to demand serious attention. This was especially the case with the Parthenon. A committee was accordingly appointed by the Ministry of Education to make a careful inspection of this venerable monument, and report on the gravity of the injuries and the means of repairing them. After a long delay, occupied by the erection of the required scaffoldings, and debates, which absorbed nearly as much time, in the sub-committee to which the matter was more expressly entrusted, no conclusion was reached. Ernst Ziller, an architect resident at Athens, distinguished for the excavation of the Panathenaic Stadion in the year 1870, and various other studies in architectural archæology, could not agree with his colleagues about the mode in which the injuries sustained could be repaired and future dangers averted. In his minority report, which appeared at the end of November last year, he begins with an historical survey of the injuries sustained by the great monument in previous centuries and down to our own day. The worst of all were those inflicted during the siege of the Akropolis by Morosini in the year 1687. In Ziller's view last year's earthquakes did no damage to the Parthenon. Only fragments which had lost their equilibrium, or broken bits of architecture which had long been hanging loose, were shaken from their insecure position and thrown to the ground. Some of these fallen pieces measure a metre and more in length. But the earthquake is not the sole cause of these falls. Herr Ziller maintains that in the last thirty-four years he has had the opportunity of observing the fall of similar broken blocks, or even whole tablets of stone, after violent rains or severe frost. These loose pieces are in reality only dangerous for visitors to the Parthenon, since some of them weigh two hundred kilos and even more. As regards any real danger to the building itself due to such destruction of its parts, Ziller thinks there are very few injuries of sufficient importance to cause it. All the same all the damaged parts must either be consolidated or entirely removed.

After a survey and criticism of the repairs previously undertaken both in ancient times and in the present century, he proceeds to his

conclusions. In his opinion no reconstruction is necessary for ensuring the security of the Parthenon. He strongly objects to any combination of new and old. He does not therefore suggest the construction of new architraves, capitals, shafts, &c.: "We desire to see the antiquities before us in their purity and without modern patchwork"—as few fresh additions as possible. Our aim ought only to be preservation, and this must be attained by cement. He recommends as the best kind the stone cement manufactured by Friedrich Mayer at Freiburg. Ziller believes that a process of cementing, both for joining and filling up gaps, with the appropriate use of these methods in each individual case, would attain the end of preserving the building. The greatest care would be required by the architrave of the Opisthodomos between the third and fourth columns, which has sustained the gravest injuries; and this might also be repaired by means of cementing and by vertical iron bars.

Ziller's report was apparently drawn up in a spirit of opposition to the opinion expressed by the majority of the sub-committee, and laid before the Ministry. This majority, which included Prof. Wilhelm Doerpfeld and Anastasios Theophilos, Director of the Polytechnic, devoted their attention in the first place to the above-mentioned architrave, and in the second to the other injured portions of the Parthenon. The architrave appears to be in the most dangerous condition. Of its three blocks the outer one, on the east, proved to be completely broken; it is only kept in its place by the support its angles receive from the capital and the frieze between which it is situated; the middle block is also broken, and remains in a vaulted shape, but it might be saved by efficient supports; only the outer block on the west, over which come the reliefs, is intact. To make matters worse, the support of the architrave is very weak, for it rests on the capital of the third column, which is likewise broken, and needs repair. Accordingly, no technical means can preserve the architrave; and even were there any such possibility, the repairs would not be lasting, and the preservation would be of short duration. On this account the majority of the committee came to the following conclusions: (1) The broken block of the architrave must be removed; (2) the middle block must be supported by vertical iron bars; (3) the broken portion of the capital of the third column must be replaced by a new symmetrical piece of marble; (4) the part of the architrave removed must be replaced by a new roughly shaped block of marble. The sub-committee did not confine itself to indicating the works that would be required for the security of the damaged architrave, but also described the mode in which these must be carried out. As regards the other injuries, it was proposed that, on account of their varied nature, the same person who

should receive the commission to repair the architrave should also be empowered, in conjunction with the General Ephoralty of Antiquities, to examine and gradually remedy the various other injuries sustained by the building.

Thus far the two reports, that of the majority and that of Herr Ziller. This difference of opinion, and the great responsibility connected with so important—nay, even international—a question, induced the Greek Government to summon a specialist to Athens, who, as architect and archæologist combined, might consider the matter with unimpeachable authority. For this end Prof. Julius Durm was summoned from Karlsruhe. Durm devoted the greatest enthusiasm to the investigation, and, after a careful study of the damage sustained by the Parthenon, has embodied his conclusions in a long report, which has been submitted to the ministry of Education. The report itself is to be published in German in Germany, and a Greek translation by Dr. Georg Sotiriades will shortly appear here in the *Ephemeris*, but, as far as can be judged from the accounts of it already to hand, Durm is entirely opposed to cementing, and has but a poor opinion of Mayer's stone cement. The character of the Pathenon, as of all other monuments of antiquity, must undoubtedly, in his opinion, remain untouched; but still the architrave, which is threatened with destruction, must be completely restored. It is not necessary to use new marble for this purpose, though even this step need not be absolutely condemned, since the iron ingredients of the Pentelic marble would soon assimilate the colour of the new piece to the old. It is not necessary, however, to go this length, for there is a sufficiency of old material lying round the Parthenon to supply the marble required for replacing the damaged part of the architrave in the Opisthodomos. But this is by no means the only piece of work required in the Parthenon. Durm directed his attention to the walls of the cella as well as the columns and capitals, and carefully noted everything which required repair. It is of the first importance to guard against the destructive effects of rain and the vegetation growing in the midst of the ruins. His report consists of three parts. In the first he describes with great accuracy and lucidity the injuries observed in the whole building, and these are represented to the eye by appended sketches of the damaged parts. In the second he discusses the consequences which may ensue sooner or later, if the neglect of the monument should continue. In the third he expresses his views as to the means required to avert a danger which may be imminent. Of especial importance is the immediate substitution of two fresh pieces, on the Opisthodomos and on the south side. Since this requires the greatest skill and care, he

indicates most minutely the mode in which the work may be undertaken with safety, and appends the necessary diagrams.

Herr Durm has not confined his attention to the Parthenon alone, but has examined all the antiquities on the Akropolis, and even the so-called Temple of Theseus, and supplies the required information about each. Especially interesting are his counsels, given in answer to inquiries, as to the examination of the material lying about the Erechtheion. The point at issue was whether the northern prostasis of the temple could be reconstructed from these ancient materials, as had been done in 1838 for the upper part of the north and south walls. Durm's opinion is that this reconstruction is quite feasible, and that the expense would be about 56,000 drachmas; and this satisfactory reply encourages the hope that a rich Greek may take this expense on himself. The sums required for the Temple of Theseus are not considerable; but Durm thinks it may be possible in the future to revive the antique character of this temple by removing the Byzantine additions, and restoring the antique roofing. As regards the other monuments, neither the Stoa of Hadrian, nor the Roman Agora, nor the monument of Lysikrates will necessitate any expense; the repairs needed at the Agora gate and the monument of Philopappos are inconsiderable.

As may be seen from the above, Durm distinguishes sharply between urgent and not urgent, necessary and desirable, what must be done and what might be done. It was due, therefore, to a pure misunderstanding that the sum of a million francs was at first named as the amount required by him for the restorations. The sum really necessary is 200,000 francs for the Parthenon, but even this is not all required at once; 100,000 drachmas, *i. e.*, about a quarter of this sum, is sufficient to avert the danger, and carry out the most urgent works. The rest is required for the complete restoration and decoration of the Parthenon, and can be executed gradually and in the future.

Since the present condition of its finances does not permit the State to disburse this sum itself, the Society of Archæology has undertaken to supply the funds. In order to obtain a more abundant supply, it has procured permission, by means of a royal decree, to transform the lottery which the law permits it to hold, and which at present brings in a yearly income of 100,000 drachmas, from a yearly to a quarterly one.

One other point must be decided before the works can be begun. Durm has suggested that workmen should in the first instance be brought over from Germany or Italy. At first this led to much discussion here. Some thought the works could quite well be carried through by native workmen. Now, however, there seems no more

opposition to the introduction of foreign workmen, but the General Ephoralty of Antiquities appears inclined to call in more Italians than Germans.

Matters stood thus on the arrival from Paris on the 2nd of April of Lucien Magne, the architect who had already examined the Parthenon last year, and since then had publicly expressed his views in Paris as to the mode in which the repairs could be carried out. Magne is a very competent authority, being a member of the Committee for the Preservation of Historic Monuments in France, and he has himself superintended the restoration of various buildings—among them the church of Montmorency. Immediately on his arrival at Athens he expressed his views at a meeting of the French Archæological Institute held on April 3rd, and demonstrated them by means of a little wooden model of part of the Parthenon constructed for the purpose.

Magne showed how the great architect, by the system which he employed for binding together the stones, attained a perfectly solid consistency in the building. But owing to the bombs during the siege by the Venetians and the explosion of the powder magazine, cracks ensued which allowed a passage to the rain-water; in consequence the Pentelic marble split at certain places, and the consistency of the whole was weakened. In Magne's opinion there can be no question of stone-cementing or any similar process of restoration. The method of repair must be a double one. The small loose stones might be riveted together with lead by small iron or copper hooks (*agrafes*). The treatment of the larger portions of the building gives rise to greater difficulties, such as the shafts of the columns, the single blocks of the architrave and cornice. The difficulty is chiefly due to the manner in which the stones of the Parthenon were held together by the ancients. The blocks are connected with those next to them by horizontal brackets in the shape of a double T, but also with those above them by vertical brackets, which are fastened with lead in the lower block only, but left unfastened in the upper one. Now in order to remove a block from the architrave to replace it by another it is necessary, after breaking through the horizontal brackets, also to raise the block of the cornice above, with which the stone that has to be removed is connected by vertical brackets. In consequence of this difficulty especial precautions and a peculiar mode of treatment are necessary, as shown by Magne on his model. It is of special importance to construct a particular kind of scaffolding for this purpose. It should be of wood, not iron, and have a double flooring. One floor must be placed below the block to be removed, and the other below the one above it. First of all the upper block in the cornice or frieze must be raised and placed on the upper flooring of the scaffolding; not till the

broken block below it, for which the lower floor of the scaffolding is wanted, has been removed and replaced, can the upper block be replaced in its former position. Shafts and other architectural pieces can also be safely replaced in a similar fashion. According to Magne, there are three or four pieces of the Parthenon, besides the architrave of the Opisthodomos, to which allusion has been so often made, that ought to be replaced in this manner. The most important is the northern angle of the *sima* of the western cornice, and, in fact, all the *mutuli* of the cornice are insecure, since some of the supports are wanting which should secure the equilibrium and consistency of this, the most boldly projecting portion of the building. If the corner pieces of the *sima* should fall, the whole western cornice, one of the most picturesque and characteristic parts of the Parthenon, would be endangered.

As to the workmen, Magne considers that it would be quite possible to depend on native work only. Magne will lay his report as to the means of securing the Parthenon before the Greek Ministry of Education on behalf of the French Government; but his studies in the matter, with the illustrations, will be published by the Department of Fine Arts at Paris in an *édition de luxe*.

This is the present state of a question in which the whole civilized world cannot fail to be interested.—SPYR. P. LAMBROS, *Athen.*, Sep. 28.

THE PARTHENON.—The first number of the *Eph. Arch.* for 1895 (pp. 1–58), is entirely devoted to Professor Durm's report on the condition of the Parthenon and other ancient monuments in Athens. The report is illustrated by five plates and seventeen cuts in the text.

The *Arch. Anzeiger*, 1895, pp. 100–102, contained an account by Dr. Josef Durm of the injuries done to the Parthenon by earthquake in 1894, with recommendations for its restoration and preservation. A more complete and official statement of Dr. Durm's views is contained in his *Gutachten*, Ernst und Sohn, Berlin, also *Centralblatt der Bauverwaltung*, 1895, No. 19–21 and 23 A.

PARTHENON METOPES.—In the *Eph. Arch.*, 1894, pp. 213–226, W. Malmberg writes of *The Metopes of the Parthenon* (Pls. 10, 11). Of two fragments in the British Museum one has been shown by Schwerzek (*Journ. Hell. Stud.* XIII, p. 89) to belong to the boy P of the western pediment; the other belongs to Metope XVI (Michaelis) of the south side. Fragment No. 714 in the Akropolis Museum belongs, as Michaelis saw, to Metope XXIV. Sauer (*Festschr. f. Johannes Overbeck*, p. 73 ff.) has added a fragment to Metope XIX. To Metope XI belong fragments published pl. 10, 1, 2, 3, parts of shield and arms of a Lapith, and the rear part of a centaur. This metope represented a lively combat. The fragment pl. 10, 5, is the upper part of the

female figure of metope XXI. Michaelis' fragment N belongs to metope XVII; M probably not to metope XVI, and P certainly not to metope XXIII. On the north side, no battle of centaurs was represented. The northern metopes II–XXVIII form a series, first farewell scenes, then the Trojan war, then the sack of Troy. A number of fragments is ascribed to these metopes. Fragment P represents a man holding a horse. Metope XXIX represents Selene. In regard to the eastern metopes, the writer corrects in slight details the views of Michaelis and Robert. The western metopes probably represented a battle of Amazons, but this is not certain. Doerpfeld's suggestion (*Mitth. Ath.* 1892, p. 173) more positively stated by Robert (*Die Iliupersis des Polygnot*, p. 61) that some of the metopes of the Parthenon may have been made for Kimon's building, cannot be correct, for the Parthenon metopes are evidently later than those of the temple at Olympia, *i. e.*, later than 460 B. C. The metopes with scenes from the sack of Troy (*e. g.*, Mich. XXIV and XXV) show the influence of a painter, very likely Polygnotos.

In the *Jahrbuch d. k. deut. Arch. Inst.*, 1895, pp. 93–107, E. Pernice writes *On the Middle Metopes of the South Side of the Parthenon* (pl. 3). Metopes XIII–XXI (Michaelis) represent the myth of Erichthonios. In XIV Aglauros has opend the *cista* and Erysichthon starts back in terror. XIII represents Herse and Pandrosos. XV and XVI represent the overthrow of Amphiktyon by Erichthonios, XVII–XXI represent the erection of the ξόανον and the founding of the Panathenaic festival.

THEATRE OF DIONYSOS.—The excavations under Dr. Doerpfeld at the theatre of Dionysos have contributed in no small degree to throw light on the history of the construction of the theatre; for it has been proved that the floor of the *parodoi* was upon the same level as the ancient orchestra, and from certain indications it is possible to reconstruct the constructions of the time of the orator Lykourgos. The stylobate of the proscenium, which was built after the age of Alexander, has been brought to light. Before this time the proscenium was movable, and not stationary as since the Alexandrian epoch. Behind this proscenium, however, are visible the foundations of the stage of the theatre built by Lykourgos, the front of which Dr. Doerpfeld thinks was adorned with eighteen columns, and the height of which was four metres. Even the front view of the parascenium was decorated on each side with six columns. At the bottom of the theatre was discovered, in the foundations of the Phædrus stair, a marble torso; and on the eastern parascenium, under the surface of the Roman constructions, was unearthed an inscription in which occurred the names of two artists hitherto unknown. Beneath the

orchestra underground passages were met with, which the newspapers hastened to identify with the Charonic steps mentioned by Julius Pollux. Dr. Doerpfeld, however, has shown that this idea is untenable. It is also an interesting feature that these passages lead directly to the centre of the orchestra, which Dr. Doerpfeld, it is well known, has for some years past maintained, formed in the golden age of Attic tragedy the stage. Now Charonic steps were not required, in the theatre of Dionysos in ancient time, for the appearance on the stage of personages who came from the lower regions, because originally the ground on the southern half of the orchestra was lower than the northern, since the rock sloped away.—*Athen.*, July 20.

THE ODEION OF AGRIPPA.—Excavations are being carried on under the direction of the Director of the German School, Dr. Doerpfeld, in the space between the Areiopagos and the ancient Dionyseion or the so-called Linaion. He was led to make excavations at this point because Pausanias refers to this vicinity as the site of the ancient theatre called by other writers the Odeion of Agrippa. Nothing has as get been found to attest the accuracy of Pausanias.—*Atlantis*, April 6.

OLYMPIC GAMES IN 1896.—If the Greek newspapers do not exaggerate, the revival of the Olympic games next spring will be upon an imposing scale. The international sports, as already announced, will take place in the ancient Stadion, which will be rebuilt for the purpose at an expenditure of 500,000 drachmas, wholly subscribed by M. Averoff, a wealthy Greek in Alexandria. It is to accommodate 100,000 people. The boat-races will be rowed between Old and New Phaleron, the harbor of Munychia being used as a shelter in rough weather. It is expected that more than 200 boats will take part in these contests. For the running it is proposed to adopt the historic run to Marathon. Invitations have been forwarded to 2,000 different athletic clubs in all parts of the world, and 300 have already agreed to send representatives. At night the Stadion will be lighted by electricity, and native dances will be performed. The Akropolis and the other ancient monuments will also be illuminated. More than 100,000 visitors are expected to visit Athens from the provinces and abroad, and the executive committee are anxiously considering the best means for the accommodation of this influx. Greeks at home and abroad are taking the keenest interest in this national undertaking, and large sums of money have already been forwarded from London and Alexandria. Nearly 200,000 drachmas have been collected in England.

The preparations are now in full swing, especially in the Stadion, which is by far the heaviest part of the work, and which, covered with huge blocks of marble and resounding with the strokes of hundreds of

chisels, presents a striking contrast to the peaceful solitude which has for years and centuries reigned over its grassy slopes. This scene of the ancient Panathenæan games is an artificial enlargement of a natural hollow between two of the lowest spurs of Mt. Hymettos. It is turned towards the city, and from its entrance (by the "whispering" Ilissos) a magnificent panorama is obtained from Lykabettos and the Palace Gardens on the right to the Akropolis and distant Salamis on the left. Its embanked sides slope up to a height of 60 to 80 feet around a level space 670 feet long by 109 feet wide, in the form of a horseshoe (as has been ascertained by recent excavations).

Of course it will not be possible to finish the entire Stadion in marble by next March. Only the circular end, in its entire height, and the three lowest tiers along the sides will be done in marble; the remaining rows of the sides will be executed in wood and painted in imitation of marble, but will be replaced gradually by marble rows. M. Averoff has signified his intention of having this magnificent arena, which is capable of seating 70,000 spectators, finished entirely in Pentelic marble at his own expense, as a permanent field for athletic contests; and certainly Athens will regain through his patriotic liberality one of her most glorious and unique monuments, useful as well as ornamental.

In the Stadion, thus restored and provided with a fine running track, the field sports, foot races, and gymnastic contests will be held; here also will be the finish of the twenty-six-mile long-distance race from Marathon to Athens, for which a special *amphora* or cup will be offered, in memory of the plucky runner of old who died to bring to Athens the news of the rout of the Persians. The bicycle races will be held on grounds specially laid out for the occasion, half-way between the city and the seashore, on the Phaleric plain. The aquatic sports—swimming and rowing—are to take place in the roadstead of Phaleron, while the Saronic Gulf, locked in by islands, will form an unexcelled sailing ground for the yacht regatta, which promises to be unusually brilliant.

These are the chief items on the programme of the games proper. But as the Olympic festivals of yore were not confined to athletic contests, so the visitors who will crowd to Athens next April will find an abundance of interesting features of the celebration entirely outside of the aforesaid programme. To pass over the numerous official and semi-official banquets which will be given to athletes, delegates, foreign squadrons, and potentates, the city of Athens is organizing various special events for the entertainment of its guests, which will doubtless give the entire celebration a character long to be remembered. Among these special features will be, for instance, the artistic illumination of

the great monuments of antiquity by night, a grand historical torch-light procession, representing memorable scenes from Greek history, ancient and modern, and a series of gala representations of the dramatic master-pieces of the world, beginning with a Sophoklean tragedy and ending with Wagner's "Lohengrin." A special Olympic Hymn, composed for the occasion by the modern Greek composer Samaras, is to be rendered by a monster chorus and orchestra, and a commemorative medal is to be struck and distributed. The French Archæological School at Athens is to celebrate its jubilee at the same time, and a large international gathering of savants is expected to attend; the American School of Classical Studies, the German Archæological Institute, and the British School will also hold special public meetings during the festivities. Last, but not least, the inauguration of the games on April 6 will coincide with the seventy-fifth anniversary of the Declaration of Greek Independence, and thousands of enthusiastic visitors and delegates are expected from the five or six millions of Greeks living yet under Turkish rule, and from the numerous and wealthy Greek colonies all over the world, to take part in commemorating the day. If one adds the numerous English, American, French, Italian, Hungarian, Swedish, Russian, and Belgian athletic organizations, the great British and French yacht clubs, and the Turkish wrestlers and State College athletes, that have already promised to send their champions to the meeting, the vast concourse which will be assembled in the new Panathenaic Stadion will form the most picturesque medley of tongues, races, and costumes ever seen in the violet-crowned city of Theseus.

The interest displayed by the American people in this Athenian meeting, the promised participation of so many American athletes, and the formation of an American committee in behalf of the project, under President Cleveland's chairmanship, have aroused lively satisfactionin Greek circles.—*N. Y. Evening Post*, Aug. 15 and Sept.

THE REFITTING OF THE STADION.—The remodeling of the Stadion is being done by the architect, Ernst Tsiller, on the basis of the excavations which he himself made in 1873. It is true that the traces preserved are very few, but this has in no wise injured the work, because Herr Tsiller does not propose to show us how the Stadion was in ancient times, but how it is possible for it to be now fitted to be used for the Olympic Games.

By the plan of Herr Tsiller the indicated arrangements comprise works of two kinds: the Stadion and the preparation of the square in front of it. On the one side and the other of the Stadion exactly at the point where are preserved traces of the ancient wall will be erected a wall of stones laid in the Pelasgic manner.

At the two highest points of this work will be erected two four-columned stoas of belvidere form, and upon these figures of wrestlers from ancient statues.

At the inmost part of the stadion and upon the path leading to Agios Elias will be erected a stoa for the king, the royal family, and invited persons of note. The arena will be divided for the race-course by a long lattice of marble. On each side at the entrance will be erected the elevated place upon which the chief judge will stand. The arena will be separated throughout its whole length by a partition of mable or of iron lattice work. Then will come a broad passageway and then immediately the benches of wood. At their highest point, as in ancient times, will be a passageway. Stairways will run across throughout the length of the passageways. Two very tall poles, carrying standards, will be placed at each side of the entrance.

The preparation of the square in front of the Stadion includes: (1) The leveling of the ground, the abolishment of all the existing coffee-houses, and of necessity the removal of the houses. (2) A long stoa with double prostyle of the Ionic form in which the athletes may rest, disrobe, bathe, and anoint themselves for the contests. (3) Two great fountains with reservoirs. (4) Four great statues. (5) A prostyle of six very tall poles carrying standards and trophies.

The work of the renewal of the Panathenaic Stadion on account of the International Olympic Games next April goes on vigorously. Already the breastwork surrounding the entire level space has been put in place and the preparation of the rows of seats is begun. At the curved portion, the so-called 'sling or crown' are 26 rows of marble seats, but on the sides only three, and the remaining wooden ones will be painted so that they can not be distinguished from the marble ones. Then after some time the wooden ones will be replaced with marble, since the noble George Averoff indicates that he will assume all the expense.

The entrance of the underground colonnade through which the contestants went forth is being excavated. Certain foundations were found and to-day two bases. The works in the Stadion are expected to be completed about the end of Dec.—*Atlantis*, April 20; *Aster*, Aug. 12; *Hestia*, July 10.

PLANS OF THE ARCHÆOLOGICAL SOCIETY.—The Archæolgical Society has determined on laying bare the whole of the ground round about the foot of the Akropolis. For this end it is necessary to declare that the pieces of land belonging to private owners are required for archæological purposes, and a committee has been formed—including, besides the Inspector-General of Antiquities, the University professors N. Politis and Spyr. Lambros—which will see to the legal acquisition

of these plots of ground. The complete plan would involve the removal of the whole of the poor quarter inhabited by immigrants from the island of Anaphe, the so-called Anaphiotika, to the north-east of the Akropolis; but as new homes must be provided for the immigrants, the full realization of the project is doubtful.

The Archæological Society also thinks of enclosing with an iron railing the theatre of Dionysos and the Odeion of Herodes Attikos. It is also proposed to remove the most interesting of the monuments from the Kerameikos to the Central Museum for the sake of security. I hope, however, that this project, which would altogether deprive of all character the beautiful and, in its way, unique public cemetery of ancient Athens, will not be carried out. It would be quite easy to enclose the whole spot with an iron railing, and to protect the most important memorials by covering them with glass and wire.

ATTICA.—EXCAVATIONS IN ATTICA.—Outside Athens there has recently been a great deal of activity throughout Attica, and Greeks and foreigners have vied with one another in exploring ancient tumuli and other sites. Not far from Marathon, at Kapandriti, the Swedish archæologist Wide has been at work. In a place named Kotrona, about three miles or so distant from the village, he has discovered a prehistoric tumulus containing ten graves. One of these was already open and empty; in the second, vases were unearthed similar to those which came to light at Thorikos. The other tombs yielded eleven old Mykenæan vases, two of pure gold, and three golden earrings. All of these are truly artistic. It is to be noted that Kapandriti, where these discoveries were made, occupies the site of the ancient Aphidna, which lay nine miles to the east of Dekeleia. The citadel of this spot, remarkable in Athenian history, is still preserved.

Not less interesting are the excavations instituted by M. Stais, Inspector of Antiquities, near the village of Markopulo, in the district of the ancient Deme Prasia, which belonged to the tribe Pandionis. There is there a whole prehistoric cemetery containing graves which fortunately have escaped rifling. Two-and-twenty of these have been opened by M. Stais. Clay vases of great interest, both for their shape and their delineations, were met with. They are over two hundred in number, and have been presented to the Central Museum. Also very remarkable are small bronze knives of quite peculiar shape; the bottom of the blade is narrow, and they gradually become wider towards the end. They were clasp knives, as has been inferred from a hole found on the lower part of the blade. The excavations had to be suspended all last winter, as the spot was flooded.—*Athen.*, Aug. 3.

ARGOS.—EXCAVATIONS OF THE AMERICAN SCHOOL.—Dr. Waldstein reports as follows:—"I am happy to say that at the close of this season we

shall have completely excavated the whole of the ancient *peribolos*, including the buildings adjoining the ancient temples,—all those within the sacred precinct. On the fields below the west slope, which are outside the *peribolos*, including the 'Stoa,' part of which we explored in our first campaign, I shall excavate as far as is necessary. But I hope to complete one large field, and at least to determine the nature of the buildings on this site. At all events, at the close of this campaign I may venture to say that the excavations of the Argive Heraion will be completed. I cannot refrain from quoting the opinion expressed by Mr. Kabbadias, the General Director of the Antiquities of Greece, and reiterated by foreign archæologists, that ours was a 'model excavation in Greece.' I shall now take steps to secure for the School the sole right to excavate in the immediate vicinity of the Heraion for the next five years. Last year, you will remember, we discovered two beehive tombs, two of which contained rich finds of Mykenæan vases, terracottas, cut stones, etc. There are certainly many more of these near the Heraion. The method for discovering them is a simple one. Narrow trenches are dug along the whole side of these rocks down to virgin soil; as soon as the picks strike worked earth interrupting the virgin soil, the *dromos* leading into the tomb is found. I hope that in the future some attempts will be made to discover such tombs.

"As I was kept at Rome on my way here by an attack of influenza, I telegraphed to Mr. Hoppin to begin work according to the plan we had arranged before he left for Greece. Accordingly, on March 22, Mr. Hoppin began to excavate the south slope below the second temple at the point at which we had left it last season, and thus had charge of the work for several days before I arrived. During these days Mr. Hoppin was not only able to make most valuable discoveries, such as the two best preserved metope heads, but he pushed on the clearing of the south Stoa for many feet, having to clear away about twenty feet of superimposed earth for the whole length and width of the Stoa.

"The work we have this year done on the south slope (below the second temple) appears to me, as I see it now, astonishing with regard to the amount of earth that has been removed. This would not have been possible, had we not at the beginning of last season found bedrock at the bottom of the little valley and for some way up, so that we could place a continuous dump half-way up the hill on the south slope. Our carts had thus to travel but a short distance before our eyes, and we could make a continuous dump below the line of building found on the south slope.

"At the close of the last season we had found the beginning of a building, one side of which abutted on the southeast corner of what

we have hitherto called the West Building, and which ran from east to west along the south slope about forty feet below the top of the foundation wall of the second temple, and parallel to it. We had also cut in for about ten feet behind the supporting wall east of the West Building, which separates this building from the second temple above it. We now continued to clear out this south Stoa. It was difficult digging, as there was an average of twenty feet of earth to be removed for its whole length, and large stones, drums of columns, capitals, and blocks had fallen from the terrace above, all of which had to be removed to the nearest point where they would not block the way for excavation, and carefully deposited there. As I am now writing the building is quite clear. It is a beautiful stoa, seventy-five feet in length, with walls of most perfect Greek masonry, of which four and even five layers are standing all around. Within, there are nine Doric pillars. All the pillar bases are *in situ;* three have the lower drum, while one has two drums, the remaining four, together with the capital in good preservation, having fallen immediately in front of this. At the back wall (north) there are well worked pilasters, one to each alternate pillar. The stoa is about forty-five metres long by about thirteen metres wide. It faces towards the south (*i. e.*, towards Argos) and is approached by a continuous flight of steps. The temple above it must have fallen in before this Stoa was destroyed, since, especially in the western half, we found huge drums of the column from the temple which had crashed through the roof, with geison blocks, and, fortunately for us, also metopes and sima. The flooring was thus in parts littered with fragments of marble from roof-tiles and metopes. Among these were several pieces of sculptured metopes, and of the sima, fragments of arms, legs, torsos of bodies, etc., all from the high relief of the metopes, and two well preserved heads (one quite perfect), with portions of three others. This stoa is perhaps the best preserved of all the buildings which we have found, and is certainly one of the most imposing I know in Greece.

"We also cut into the slope to the west of this stoa, but were soon convinced that no ancient building stood here; we found, however, the traces of a huge staircase which covered the whole slope on this side leading up to the great platform of the temple. There was thus on the south side of the temples facing Argos a magnificent approach to the sanctuary; and it is interesting to note that the line of buildings and the access to them belonging to this period face to the south and east, while the earlier buildings are massed on the west side. This corresponds to the change from the Mykenæan to the Argive supremacy.

"At the close of the last season, we had cut off the slope evenly behind the back wall of that portion of the stoa which was then dis-

covered. It was a huge cutting. Upon arriving this spring, I found that the rain had washed away some of the earth from the side of the cutting, and here appeared a portion of a column drum from the second temple. How this had fallen there it is difficult to explain. Reluctantly (for I knew there could be no building there) I felt bound to dig here again. We thus had to cut away futher ten feet of earth to a depth of over twenty feet and for a length of forty-five metres. All this earth was filling for the foundations of the upper temple, and contained a great mass of pre-'archaic Greek' objects, such as we had found in previous years in this same filling. We also dug down to bed-rock for the whole length inside (to the east) of the supporting wall before the West Building.

"Some interesting results appeared from this work. We were much astonished last year when Dr. Washington found in the corner behind this supporting wall and the back of the south Stoa wall Mykenæan graves such as have been found at Salamis. I could only explain this to myself by the supposition that this site was outside the earliest *peribolos*. We now found such early walls of the Mykenæan period here, together with some such graves, and a great number of vases and small objects outside these early walls.

"Such walls also appeared on the whole west slope, north and northeast of the West Building, where Mr. Rogers had charge of the work, and where we have cleared the whole site down to bed-rock. We can now say with confidence that nothing remains unexcavated *within* the ancient *peribolos*.

"We have now attacked also the fields to the west and southwest, *outside* the *peribolos* walls, where in exploring during the first season we had traced a large stoa and conjectured that there was a Roman temple. This conjecture was a happy one in so far as in the field below, immediately to the west of the temple and bordered by the stream (Eleutherion) on its outer (northern and western) sides, we have found buildings of the Roman period, namely, an extensive and complex system of Roman baths. This is interesting also in its bearing upon the whole nature and function of the sanctuary.

"The other large field I shall excavate as far as possible, and shall especially do my best to enable our architect to make plans of the buildings.

"A few words about our finds. In this respect we have been as lucky as ever. I have already referred to the metope fragments and to the heads. These latter correspond to those we had already found and belong to the metopes. They are worked in a vigorous manner, and are still of such careful execution that I believe even those of the Parthenon can hardly rival them in this respect. One head of a youth

with a helmet is in perfect preservation, even the tip of the nose remaining intact. We shall now have a large number of fragments at Athens, and we may hope to be able to piece some together. At all events the sculptures coming from this temple built by the Argive Eupolemos, with Polykleitos as the sculptor of the temple statue, are among the most important specimens of the great art of the fifth century before Christ.

"From the filling to the second temple we have about seventy-six baskets full of vases, terracottas, bronzes, etc. Though a great part of these came from the dry rubbish used to fill up the platform, I am more and more convinced that in the earlier periods there was some sacred building or great altar on the site of this temple. The early Mykenæan walls along the slopes belong to these, as well as most of the finds which were votive offerings. We have again found here a number of Egyptian objects, including several scarabs. Of smaller objects, gems, and terracottas, this year has given a very large harvest.

"We have found several inscriptions,—some of the Roman period; but the most important epigraphical find, perhaps, of the whole excavation, is a bronze plaque about eight inches square with eleven lines of bustrophedon inscription in the earliest Argive characters. Mr. Rogers probably will undertake a preliminary publication.

"I have the photographer Merlin here now, who is taking views of the buildings and the sites, and I shall proceed to make arrangements with Mr. Tilton (architect) for the most adequate form of publication.

"I shall do my best, and Mr. Tilton promises to use all his energies to assist me to put into the printer's hands the first volume, containing the introduction, the architecture, and possibly the sculpture, by the autumn of 1896.—*Fourteenth Annual Report of Manag. Comm. of the Am. Sch. of Class. Studies at Athens*, 1894–95.

DAPHNI.—THE MOSAICS.—In the immediate neighbourhood of Athens lies the mediæval convent of Daphni, celebrated for the mosaics with which its church is decorated. The readers of the *Athenæum* are aware that the Greek Government and the Archæological Society of Athens have undertaken to save these mosaics. Carefully detached from the walls by a Venetian artist of the name of Novo, they were replaced after the most injured portions of the structure had been rebuilt. Several of the ancient mosaics, now restored to their old positions, will be found copied and described by M. Millet, of the Ecole d'Athènes, in recent numbers of the *Greek Archæological Journal*. One of those lately replaced is the so-called Anastasis, the descent of the Saviour into the lower world for the rescue of those confined there, a representation which accords with the tradition of the Eastern Church at Easter. The place in the church of this beautiful mosaic is on the

right of the entrance from the western door, at a height of 5 m. from the ground. It is 3.15 m. high and 2.28 m. wide. Ludwig Thiersch, of Munich, who studied the picture forty years ago, considered it one of the finest works of the Byzantine school. A highly interesting fact is that some time ago, when certain modern additions to the narthex were pulled down, its western wall was found to be enriched with two mosaic pictures hitherto unknown. They are symmetrical semicircular works, one of Joachim and Anna, the other of the seizure of Jesus on the Mount of Olives. The latter is the more interesting, and it is also the more recently brought to light. It covered the right-hand portion of the western wall of the narthex. Singularly animated are the figures of the Saviour, of Judas, and of the Roman centurion. Judas's physiognomy is exceptionally sympathetic; he is giving the Saviour no kiss, but is laying his right hand vehemently on His shoulder. The centurion holds his staff towards Jesus.—*Athen.*, Aug. 3.

DELOS.—EXCAVATIONS OF THE FRENCH SCHOOL.—In the last campaign the principal aim was to lay bare the part of the town adjacent to the harbour, as we possess in this quarter a Greek Pompeii, so to say, covered with a huge layer of earth, the removal of which is destined to enlarge our knowledge of the domestic life of the Greeks as well as to yield objects of art. A considerable portion of the ground adjoining the harbour has been turned up, and commercial warehouses and private dwellings have come to light, so that we can not only draw up the plan of a Greek house, for a knowledge of which we have hitherto been pretty well dependent on Vitruvius, but we have also gained posession of real artistic treasures. The dwellings at Delos are in other respects well preserved, and they were not merely decorated with wall paintings and mosaic pavements, but also contained works of sculpture, some of which were statues of the owners of the buildings, while some were ideal works or copies of famous masterpieces. The best of the pieces of sculpture discovered up to the present time are a marble figure of a woman of the Roman period, in the best state of preservation, and a beautiful replica of the Diadumenos of Polykleitos. The finds hitherto made encourage the hope that further excavations may lay bare all the buildings lying round the temple as well as the lower city, which was still a flourishing place in Roman days. Occupied with the explorations at Delphi, the French cannot, for the time being, proceed more vigorously at Delos; only after the close of their excavations at Delphi will they be able to work systematically, and bring to the island the machinery now in use at Delphi.—*Athen.*, July 20.

PLAN OF THE HARBOUR.—M. Ardoillon has been able to trace the complete plan of the ancient harbour of Delos, which in the second cen-

tury B. C. formed the chief commercial emporium of the Mediterranean. The harbour consisted of two basins, the one for pilgrims, the other for merchants, called the sacred and the profane. The merchants' harbour was divided into two basins, corresponding to the two quarters on land, one on the north, the other on the south of the sanctuary, the one consisting of docks and warehouse quays, the other of shops and bazaars for traffic.—*Athen.*, Aug. 31.

DELPHI.—DATE OF REBUILDING OF THE TEMPLE.—At a recent meeting of the Académie des Inscriptions, M. Homolle read a paper on the date of rebuilding of the temple of Delphi, as revealed by the French excavations. The foundations of the western face and the south-western corner show traces of an earthquake, subsequent to the building of the Alcmæonidæ, in the sixth century. Many of the courses are constructed of pieces of moulding and fragments of a triglyph from the eastern front, which (as is known) was of marble. That side of the temple, therefore, must have been overthrown, and the debris utilized for the new building. Even the original foundations of that side have disappeared: all that now remains shows that the building was erected at one time, and according to a uniform plan. None of the portions of architecture that have been discovered can be assigned to a date earlier than the fourth century. Consequently the temple must have been destroyed and rebuilt towards the end of the fifth or the beginning of the fourth century. Also from the inscriptions discovered at Delphi, the conclusion can be drawn that very extensive works were going on from about 350 to 330 B. C. These inscriptions relate to every part of the building—from the prodromos to the opisthodomos, from the outer portico to the inner cella. An inscription at Athens, combined with a passage in Xenophon, show that an appeal was issued by the Amphictyons to all Greece for subscriptions towards the rebuilding of the temple in the year 371 and 368 B. C. If, then, the temple discovered by the French is a monument of the fourth century, it follows that Pausanias, when describing what existed in his own time as a work of the sixth century, must have been wrongly informed. And a literary question of the first importance—nothing less than the credit to be given generally to the statements of Pausanias—arises from the discussion of what seems at first only a problem in archæology.—*Acad.*, Oct. 5.

DISCOVERY OF SCULPTURES.—It is reported from Delphi that reliefs have been found representing Herakles shooting the Stymphalian birds, the fight with Antaios, a part of the Centaur fight and the rare representation of Herakles slaying a sea monster with reference to the freeing of Hesione. These reliefs show that they adorned the front of the "skene" as in the theatre of Dionysos.—*Atlantis*, July 6.

Yesterday was reported the finding of a poros statue representing probably Athena, unfortunately without a head. The stone bears traces of coloring. The style of the work suggests the poros reliefs of archaic style found on the Athenian Acropolis. The ruins of a marble lion were also found.—*Hestia*, May 26.

ELEUSIS.—THE INSCRIPTIONS.—The Council of the Archæological Society has recommenced the excavations there, and intends to clear the whole place within the year. Not much remains to be done, inasmuch as the greater portion of the site has already been laid bare under the intelligent superintendence of M. Philios, whose name will remain inseparably connected with Eleusis. M. Philios has proceeded further with the study of the sculptures and inscriptions derived from the ruins, and I cannot resist making mention of his communications. One of these, read in the spring before the French Archæological Institute, is devoted to the *personnel* of the Eleusinian priests The inscriptions prove that there were as many men as women. The men were the hierophants, the Keryx, the Dadouchos and the so-called ἐπὶ βωμῷ; the women consisted of the female hierophant the Demetra, the hierophant (female) of Kore, the Dadouchusa, and the Hiereia. All were chosen in equal numbers from the family of the Eumolpidai and Kerykes.

In another paper M. Philios discussed the following inscription: —

Καὶ σοφίῃ κλεινὸν καὶ σεμνὸν φάντορα (?) νυκτῶν,
Δηοῦς καὶ Κόρης γνὸν ὁρῷς πρόπολον,
ὅς ποτε Σαυροματῶν ἀλεείνων ἔγον ἄθεσμον
ὅργια καὶ ψυχὴν ἐξεσάωσε πάτρῃ,
καὶ τελετὰς ἀνέφηνε καὶ ἤρατο κῦδος ὅμοιον
Εὐμόλπῳ πινυτῷ καὶ Κελεῷ ξαθέῳ,
Αὐσονὶδην τε ἐμύησεν ἀγακλυτὸν Ἀντωνῖνον,
ὧν' εἵνεκ' αἰν.....

This stone probably relates to the same person who is mentioned in the inscription first published by Chandler (C. I. A., III. 713). Boeckh conjectured that this last inscription, in which also there is mention of a hostile raid upon Eleusis, refers to the Heruli who invaded Attica in the year 267. But since the emperor who was initiated by the Eleusinian hierophant is called Antoninus in the new inscription —a name which was not assumed by any emperor later than Heliogabalus — it is extremely probable that Marcus Aurelius is the sovereign intended, and it may be plausibly conjectured that the Sauromatæ mentioned in the inscription are the Costoboci, who, according to Pausanias, penetrated as far as Elateia in 167 A. D., and were driven thence by Mnesibulus. The writer of this letter here

conjecturally identified the Sauromatæ with the Costoboci when he was favoured by M. Philios with a copy of the inscription some months before.—*Athen.*, Aug. 3.

INSCRIPTIONS.—In the *Eph. Arch.*, 1894, pp. 189–212, A. N. Skias publishes forty-two *Inscriptions from Eleusis.* These are very fragmentary, chiefly votive or dedicatory. Nos. 1, 2 (=C I A *I* 422[5], Suppl. p. 105), 3, and 4 are interesting on account of their archaic letters. No. 10 is an account of expenses for building and repairs. No. 36 is a decree of "later Roman" times.

DISCOVERY OF A TOMB WITH RICH CONTENTS.—At Eleusis a tomb has been discovered, important for the variety and richness of its contents. Around the skeleton of a woman buried in it (probably a priestess) lay numerous objects of female ornament, amongst which were some very finely executed earrings with amber globules, some brooches in bronze and iron, many rings in gold and silver, and some bronze bracelets. The rest of the contents of the grave consisted of some seventy vases of various forms, three Egyptian scarabæi, and a statuette of Isis in ivory. These last objects point to some relation between the Eleusinian mysteries and Egypt, as indicated a short time ago by M. Foucart.—*Athen.*, Oct. 12.

DISCOVERY OF A PAINTED TABLET.—In the excavations being made at the expense of the Archæological Society and under the direction of the Ephor, M. Skia, in Eleusis, there has been found a painted tablet of baked earth, having a rectangular form and terminated by a beautiful gable. This work, which is reckoned to be of the fourth century before Christ, is by an eminent painter of that epoch, and has four female figures of which the coloring is remarkably preserved. At the basis of this offering, which from a casual examination appears to have been used with reference to the Mysteries celebrated there in antiquity, the inscription is preserved, 'Minion set it up.' To this find a great signification is given by the experts, not only on account of its beautiful workmanship in general, but also on account of the evident position which its representations hold with reference to the Eleusinian Mysteries, concerning the form and nature of which we have no certain knowledge yet.—*Atlantis*, June 8.

DISCOVERY OF AN URN.—The Ephor of Antiquities, M. Skias, while overseeing the excavations at Eleusis, found a beautiful urn, unfortunately in fragments bearing the customary representation of Eleusinian urns, that of Demeter, Kore, and Triptolemos. This urn bears the subscription in letters plated with gold:

Δημήτρια Δήμητρα ἀνέθηκε.

The urn was gilded in many places but the gold has been worn off through time. It is of the fourth century B. C.—*Hestia*, May 23.

REPRESENTATIONS OF TRIPTOLEMOS.—A third communication of M. Philios is taken up with the representations of Triptolemos. Starting from some reliefs found at Eleusis, and comparing them with other sculptures and vases, he came to the conclusion that Triptolemos was always depicted as sitting in a car drawn by winged dragons. There is only one exception, the standing figure of Triptolemos occurring on a relief discovered several years ago in the little church of St. Zacharias at Eleusis, and preserved in the Central Museum at Athens; for M. Philios identifies as Triptolemos the youthful personage placed between Demeter and Kore, although others take him for Bacchus, and Bœtticher considers him a herdboy. Inasmuch as the drapery of Kore on this relief resembles that on other monuments of the fourth century, among them some obviously related to Praxiteles, M. Philios agrees with Robert von Schneider that this type of Kore should be referred to Praxiteles, and he goes on to conjecture that Praxiteles in his famous works represented Kore as bearing not a torch, but a crown. This would seem to be the reason why Kore in the Praxitelean group that, according to Pliny, was placed in the Servilian Gardens at Rome, was taken for a Flora, unless, perhaps, for Flora of the MSS., Cora should be read. Assuming that the youth of the Eleusinian relief is Triptolemos, M. Philios has compared the figure with the Hermes of Praxiteles and with the head, found at Eleusis, of the so-called Praxitelean Eubuleus. To the head of Hermes that of Triptolemos bears no resemblance; on the contrary, there is a great resemblance between it and the so-called Eubuleus. They have in common the dreamy look of the eyes and the characteristic peculiarity of the arrangement of the hair. Relying on this, M. Philios holds that the so-called Eubuleus represents a replica of the Praxitelean Triptolemos, but he is not inclined to object to a simple identification of it with Triptolemos without reference to the Praxitelean type, a view advocated by Kern. Another idea is also put forward by him. The head of Eubuleus has unmistakably a look of portraiture, and recalls the head of Alexander, and it might be taken for an idealized head of the Alexandrian period. But, curiously enough, the description by Plutarch of the portrait of Demetrius Poliorcetes in many points agrees with the characteristics of the head of Eubuleus, and it is not impossible that it may be an idealized head of Demetrius Poliorcetes.—*Athen.*, Aug. 3.

EPIDAUROS.—It is a shame that the Archæological Society has this year abandoned the idea of completing the excavation of the Stadion. The discoveries made there lead us to hope that in it we possess the only Greek stadion which remains in perfect preservation. Not only three rows of marble seats have been found there, but also the *aphesis* and the goal, together with the little pillars in the *meta* and the other

remains. Local hindrances stand in the way of further excavation, especially the difficulty of carrying away the earth, for which purpose a small railway must be laid down —*Athen.*, Aug. 3.

KALCHIS.—At Kalchis, in Euboia, the remains of a gymnasium of the Roman period, and of a bath attached to the gymnasium, have been brought to light at the depth of a metre in a spot named Bei Baksché, at the north corner of the town, during the laying out of a private garden. They consist of a mosaic floor covering about 200 square metres. All round it runs a border of thin stones, from which the mosaic is separated by two green lines 0.40 m. broad. Under this border run clay pipes which appear to belong to an aqueduct. This mosaic floor is connected with another space of 100 square metres which is paved with white and black slabs. On this second space are standing two walls of tufa between which were several small pillars. Several logs and inscriptions of the Roman period have been found among the ruins.—*Athen.*, Aug. 3.

LYKOSOURA.—At the same time M. Leonardos is at work at Lykosoura; and he, too, has obtained important results. The floor of the *cella* of the temple of Despoina, which has been laid open to view, is covered with an ancient mosaic of white and red stones. In the centre are depicted two life-size lions in most lifelike attitudes. This picture is surrounded with several ornamental borders, among them one of spiral maeanders, another of a garland of rich twigs plaited together, then follow again a maeander and a row of extremely pretty large arabesques of flowers. The terrace of the temple is surrounded by a supporting wall (divided into several large steps) which keeps back the masses of earth that lie above the temple. On the height lay the so-called Megaron, on which the festival of the goddess was celebrated, and the offerings of the Arcadians laid before her. M. Leonardos finds himself upon the traces of the great altars of Demeter, Despoina, and the Great Mother described by Pausanias, and he will likewise excavate the long hall mentioned by Polybios, which contained notable reliefs depicting gods and heroes. If to these architectonic and sculptural discoveries inscriptions are added, the gain for history and art will be most important.—*Athen.*, Aug. 3.

MYKENAI.—From Mykenai there is news of interest. M. Tsountas, whose name is pretty well identified with Mykenai, has been digging zealously. The excavation of the whole area of the ancient Akropolis is the main aim of his campaign this year. An interesting relief of poros stone has been found, a fragment of a metope from a temple of the sixth century. On it is depicted a goddess who has not yet been satisfactorily explained. The style is good, and the discovery leads us to hope that other fragments of the same temple may be met with.

Of the remaining discoveries may be mentioned a gold ring from a tomb. On the ring is depicted a man who is leading a goat to be sacrificed. For the next few weeks M. Tsountas will turn his energies to the excavation of a tumulus on the plateau of the Akropolis, which promises to prove most interesting as it appears to be undisturbed.—*Athen.*, Aug. 3.

MYKENÆAN ART.—Two or three recent meetings of the Académie des Inscriptions have been devoted to a discussion of the art commonly called "Mykenæan."

The subject was introduced by Dr. Helbig, of Rome, who is a foreign associate of the Académie. He began by contesting the received opinion of achæologists, that this art originated in Greece, for the following reasons: (1) As M. Pottier has rightly observed, the Mykenæan monuments undoubtedly made in the Peloponnese—such as the funerary stelae, the Gate of the Lions, the fresco of the bull, &c.—are far inferior in workmanship to those masterpieces among the movable objects which might have been imported from abroad; for example, the dagger blades worked *ad intarsio*, the handles of the mirrors, the gold seals, &c.; (2) the technical processes, often of a complex nature, which characterise Mykenæan art—such as the *intarsio* on metal, the glass-ware, the pottery, the sculpture in gold and stone—are not to be found in the authentic monuments of Hellenic art that immediately follow the Mykenæan period; (3) there is no connexion between the Mykenæan style and that of the Dipylon, which replaced it in Greece proper—it is impossible to admit that the same people who had produced the scenes full of life on the cups from Amyklai could have degenerated to the geometric silhouettes of the Dipylon style; (4) the Mykenæan artists owe much of the elements of their decoration to a maritime fauna, showing that fishing occupied an important part in the life of the people. Such was not the case with the early Greeks. The narrative portions of the Homeric epics prove that the Greeks of that time did not practise fishing nor eat fish; (5) Mykenæan objects have been found in certain regions which the Greeks only reached long after the end of the Mykenæan period—Egypt, Sicily, Italy, Sardinia, Spain. According to the Homeric epics, the arts and commerce were in a condition altogether primitive: there are no indications that the Greeks exported the products of their industry.

All the facts relating to Mykenæan art correspond, on the other hand, very well with what we know of the Phœnicians. It can be shown that the elaborate technical processes mentioned above were known to the Phœnicians as early as the fifteenth century B. C. The general character of Mykenæan art resembles closely that of the purest Phœnician art. The Phœnicians were devoted to fishing from a remote

antiquity: Sidon means "fishing village;" fishes were a prominent object of worship in Phœnicia. It is certain that, in all the regions where Mykenæan objects have been found, the Phœnicians were already settled, at least as traders. Finally, the indications supplied by the Homeric epics about the industry and trade of the Phœnicians go back to the Mykenæan epoch. After the tenth century, it was no longer Sidon but Tyre that took the lead among Phœnician cities. But the epic poets never mention Tyre, but Sidon only, which proves that they followed a tradition older than the tenth century: that is to say, a tradition dating from the Mykenæan epoch. From all these arguments, Dr. Helbig inferred that the so-called Mykenæan art is nothing else than Phœnician art of the second millenium B. C.

In the discussion that followed, MM. Bertrand, Perrot, Collignon, Ravaisson, Dieulafoy, Philippe Berger, Bréal, H. Weil, De Vogüé, and Clermont-Ganneau took part.

M. Ravaisson demonstrated, from designs reproducing the human figure according to the works of Mykenæan art, that this art was based on a principle altogether different to that of Phœnicia and Assyria, and also to that of Egypt, a principle which is found nowhere outside Greece, and which is characterised, above all, by an energetic effort to express, by forms of excessive slimness and flexibility, the ideas of heroic strength and activity. This peculiar æsthetic morphology, which is essentially preserved through all periods of Greek art, finds its most ancient expression in the objects discovered at Mykenai, Vapheio, Spata, and Menidi. There are to be seen in museums, notably at the Louvre, a large number of objects, hitherto little studied, which are examples much more elementary of this manner of seeing and working, and which take us back to a period far more remote. Among the most striking and instructive of these may be cited the vases painted in the style commonly, but improperly, called geometrical, and ornamented with figures of men and horses of the strangest character, which were discovered some while ago near a gate of Athens (the Dipylon), and at Cape Colias. But where is the cradle of primitive Greek art to be looked for? Neither in Asia Minor nor in Egypt, but rather—as M. Ravaisson maintained ten years ago—in the mountains and valleys of Northern Greece which formed the most ancient Thrace, where mythology placed the favourite residence of the Hellenic gods, where poetry described most of the heroes as being born, where the beginnings of art as well as of science and philosophy are laid, in the persons of Hyperborean Apollo (the patron of Athens) and his priest Orpheus.

M. Collignon accepted, with some reservations, Dr. Helbig's theory. Phœnician influence is acknowledged about the fifteenth century B. C.,

and also in the Homeric epoch; why, then, should not this influence be admitted to have lasted during the intervening period? Still, Dr. Helbig's theory is too absolute; and it seems to ignore the existence of a native Achæan industry. Some of the precious things found at Mykenai were undoubtedly made on the spot. He believed that there was also a native pottery. This opinion he supported by various technical arguments; and he further argued that, if a Phœnician origin for the pottery be granted, it would be difficult to account for the subsequent development of the geometrical style. For the geometrical style could be referred, to a certain extent, to the Mykenæan manufacture.

M. Dieulafoy thought that Mykenæan art had borrowed largely from both Phœnicia and Egypt, and indirectly from Chaldæa. It is in the ornamentation that Egyptian influence predominates: the rosettes, the palmettes, the maeanders are literal copies; such a ceiling as that of Orchomenos would not cause surprise if found among the tombs of Thebes. The sculpture, on the other hand, suggested the seal-engraving of Chaldæa. But, beside these resemblances, there are also differences strongly marked, which attest the share that the inhabitants of Greece, of the Archipelago, and of the coast of Asia Minor took in the elaboration of Mykenæan art. Moreover, between Mykenai and Sidon there was something more than contact and borrowing: there was union so frequent and close that the average type of the Greek population became changed—from blonde to brown.

M. Perrot gave his reasons for continuing to maintain the commonly received view. M. de Vogüé offered some observations almost entirely favourable to Dr. Helbig's theory.—*Acad.*, July 20.

MYKENÆAN STUDIES.—The *Jahrb. d. k. d. Arch. Inst.*, 1895, pp. 114–127, contains *Mykenæan Studies I*, by Chr. Belger (9 cuts). Attention is called to the paved wagon road from the Lion's gate to the upper citadel, part of which exists near the N. E. corner of Schliemann's excavations. This road is at least coeval with the Lion's gate and the ring of stone about the graves. The way to the lower city about the W. side of the ring of stone is not older than the ring itself and the Lion's gate. The ring of stone was a "stylized" θρίγκος λίθων, composed of a double row of slabs set firmly in the ground, across which was laid a third set of slabs. These last rested on wooden bars, to receive which square notches were cut in the upper edge of the upright slabs. A similar construction is found in the graves within the circle. The space within the upright rows of slabs was left hollow, the material found there having merely sifted in between the slabs or fallen in after they were removed.

MYKENÆAN PROBLEMS.—The excavations of the present year at Mykenai show that the fortress was enlarged on the eastern side and that this enlargement was contemporaneous with the building of the large underground drain. A careful examination of the northern wall upon the south makes it possible to determine the limits of the early enclosure. Such an enlargement seems to have been required not merely by the increased population of Mykenai, but also for the purpose of more effective defence. A similar enlargement took place on the western side, as was believed by Adler, several years ago. This later enlargement upon the western side enclosed the circular ring of graves which formerly stood outside of the walls. The double ring of slabs which enclosed the graves seems to have been erected for the purpose of supporting a mound which was to cover the entire group of graves. This may not have been as high as the tumuli at Troy, but evidence is not wanting of its existence. The view advanced by Belger in regard to the orientation of the graves and that their sculptured faces were set toward the west seems to be an arbitrary assumption unsupported by what is known of the religious ideas of the Mykenæans and rendered improbable by the position of these graves with reference to the fortress.—TSOUNTAS, in *Jahrb. d. k. d. Arch. Inst.*, 1895, p. 143.

OLYMPIA.—THE CURTIUS FESTIVAL AT OLYMPIA.—The great event of the month to those interested in archæology has been the recent festival held at Olympia in honor of Prof. Ernst Curtius's eightieth birthday—an anniversary which, it will be remembered, was celebrated with much éclat in Berlin on the 2d of last September. It was decided then to postpone the celebration at Olympia until the following spring, that being a better season of the year for visiting Greece. To the archæological world it seemed a peculiarly happy idea to meet at Olympia in honor of the venerable savant who had been the means of bringing its long buried treasures to the light again, after so many centuries of oblivion. Accordingly, the gathering at Olympia yesterday to witness the unveiling of the bust of Curtius included representatives from many nations and of various branches of art and letters. From an early hour in the morning the sacred Altis was thronged by an immense crowd of country-folk, who, in their gay costumes, grouped picturesquely about under the trees on the surrounding slopes, made up a scene which vividly brought to mind the descriptions of the ancient gatherings at Olympia. In the middle of the large central hall of the Museum, with the gods on either side and the beautiful Victory of Paionios behind, had been placed the draped bust of Curtius, a work of the Berlin sculptor Schaper, being a copy in Pentelic marble of the one which ten years ago was presented to Curtius by his friends and

admirers on his seventieth birthday, and which now forms one of the greatest ornaments of the quiet house in Berlin. The inscription upon the pedestal of the Olympian bust runs as follows: "ERNST CURTIUS —ΕΡΝΕΣΤΟΣ ΚΟΥΡΤΙΟΣ. Von Freunden und Verehrern gewidmet am 2ten September, 1894. Ἡ ἑλληνικὴ κυβέρνησις τιμῆς ἕνεκεν ἐνθάδε ἵδρυσε."

The exercises were opened by Prof. Wilhelm Doerpfeld, First Secretary of the Imperial German Archæological Institute at Athens, who, in a speech of masterly eloquence, gave a rapid sketch of Curtius's work at Olympia, and in conclusion called upon those present to join with him in crowning this latest of the Olympic victors with the crown of wild olive. He then withdrew the light covering which hid the bust, amid great applause. M. Kavvadias, General Ephor of Antiquities in Greece, then spoke in the name of the Greek Government, accepting the bust, and dwelling at length upon the great services which Curtius had rendered to the world of art and letters. Other speeches followed, notably that of M. Homolle, Director of the French School at Athens, whose graceful tribute both to Curtius as a scholar and to German achievements in archæology, was much appreciated. Wreaths of laurel were presented by Prof. Percy Gardner, in the name of the British School at Athens and of the Society for the Promotion of Hellenic Studies, and by Mr. Richardson in the name of the American School of Classical Studies at Athens. Dr. Doerpfeld then crowned the bust with a wreath of wild olive presented by Miss Jane Harrison in the name of the Empress Frederick of Germany, and with a wreath of laurel from the Crown Princess Sophia of Greece. In conclusion, enthusiastic cheers were given by the audience for Curtius, for Greece, and for Germany.

The ceremony at the Museum was followed by a banquet, under the genial auspices of Dr. Doerpfeld, at which, besides the opening toast to the King of Greece, whose warm interest in the work at Olympia was dwelt upon by Dr. Doerpfeld, numerous toasts were proposed to Curtius by the representatives of the different literary and scientific bodies present. In conclusion, a congratulatory telegram to Curtius was read aloud by Dr. Doerpfeld, to which the company responded with applause, a copy being afterwards passed round for the signatures of all present, to be sent to Berlin by post.—D. KALOPOTHAKES in *The Nation*, May 16.

CHRONOLOGICAL STUDIES.—In the Archæological Society of Berlin, at its general meeting, Curtius, presented a plan of the terrace with the treasure houses at Olympia and explained their history. The Kypselidae began the establishment of treasure houses when they erected the opisthodomos of the Heraion. About Olym. 50 when Sparta had

regained her strength the Heraion became a sculpture gallery. Then at the base of Mt. Kronion were established a series of treasure houses facing the altar of Zeus. Under the tyrants were established the treasure houses of Megara and Sikyon. The treasure house of Kyrene dates from the time of Battos the Lucky, about 550. The only treasure house which dates earlier than the sixth century seems to be that of Karchedon, but the booty of Himera may have been lodged in an older treasury of the Syracusans.—*Arch. Anzeig.*, 1895, p. 163.

RHODES.—M. Delamare, a French archæologist, has been authorized to excavate in the Turkish islands of Rhodes and Cos.—*Athenæum*, Aug. 25.

VALCIK.—At Valcik, in the territory of the Greek colonies in South Russia, some seven Grecian statues have been found, which, together with walls and pillars, evidently denote the site of a temple. The two best-preserved statues seem to belong to Pan and Jupiter, though identification is difficult, as both head and hands are wanting. The former is represented sitting on a throne bearing an inscription of thanksgiving.—*Athenæum*, March 16.

TURKEY.

CONSTANTINOPLE.—A RUSSIAN ARCHÆOLOGICAL INSTITUTE.—The *Arch. Anzeiger*, 1895, p. 136, reports the foundation of a Russian Archæological Institute at Constantinople. Its administration is connected with the Russian embassy. There are to be a director, a secretary, and a number of pupils. The government gives the school an annual grant of 12,000 rubles in gold. Professor Th. Uspenskij, of Odessa, has been appointed director.

REPAIR OF THE COLUMN IN THE HIPPODROME.—A commission has been appointed in Constantinople for the repair of the well-known column in the Hippodrome.—*Athenæum*, Aug. 25.

ANTIQUITIES FROM NIPPUR.—Bedri Bey, of the Imperial Museum at Constantinople, has brought to that institution the cuneiform and other antiquities found at Nippur, in the Bagdad district.—*Athenæum*, Aug. 25.

THE EARTHQUAKE.—According to the examination made by the authorities of the Greek patriarchate, the Byzantine edifices of Constantinople have not severely suffered by the earthquake.—*Athenæum*, Aug. 18.

BOSNIA.

BUTMIR.—We quote from the *Times* the following report of a paper read before the anthropological section of the British Association:

"Dr. R. Munro gave an oral address upon the neolithic station of Butmir, in Bosnia. He said that, as a member of the Congress of

Archæologists and Anthropologists held at Serajevo last August, he had carefully inspected the station and its excavations. It was highly probable that in former times it was partially a lake-basin. The discoveries made in 1893 had led to an investigation under the supervision of M. Radimsky. A perpendicular section had revealed a series of thin and more or less stratified beds of clay, charcoal, ashes, and mould, containing fragments of pottery, flint implements, stone axes, and other remains of a primitive people. This relic-bed, four or five feet thick, had a superficial area of about five acres, and lay immediately above a bed of fine clay deposited by natural causes prior to the founding of the pre-historic settlement. The occurrence on this clay of irregularly shaped hollows had led M. Radimsky to think that they were the foundations of the huts of the first inhabitants; but more probably the people lived in huts built on piles, and the hollows in the clay were diggings for making implements and for use in house construction. Some burnt-clay castings of the timbers of which the huts were constructed had been found in several places. The remains were so abundant as to suggest the idea that the people of Butmir carried on special industries for their manufacture. Stone implements in the form of knives, arrow-heads, scrapers, axes, and tools were in all stages of manufacture. The material out of which the perforated axes were made was not found in the neighbourhood, and hence it was supposed that they had been imported, thus indicating a knowledge of division of labour among these early settlers. The pottery had been ornamented with a great variety of designs, among which a few specimens with a spiral ornamentation had excited much interest. A special feature of the discovery was the existence of a number of small clay images, or figurines, rudely representing the human form, among them being one, a head of terra-cotta, disclosing art of a superior kind.

"Sir John Evans remarked that the settlers probably belonged to the transitional period between the age of stone and the age of bronze, and came there on account of the existence of clay. It was, then, reasonable to infer that the holes would represent the clay extracted for working into implements and the walls of their huts.

"The president [Prof. Flinders Petrie] said that the character of the holes in the clay reminded him of the sand-pits dug in Egypt. The specimens of black pottery were absolutely identical with pieces he had found this year in Egypt and at other times at Hissarlik and in Spain. Hence it was probable that this people lived about 3000 B. C., for the general manufacture of black pottery could be referred with certainty to the definite period from 3300 to 3000 B. C. Metal was then in use in Egypt; but it was quite possible that the people of But-

mir were living in the stone age while other peoples had reached the metal age."—*Acad.*, Sep. 28.

RUMANIA.

ADAMKLISSI.—The *Archæologischer Anzeiger*, 1895, pp. 27–32, reprints from the Vienna *Neue Freie Presse* of Feb. 14, an address by O. Benndorf describing a monument at *Adamklissi* in that part of Rumania called Dobrudja. The circular monument consisted of a cove of concrete adorned with relief slabs. These have been removed, and many are now used as gravestones. The monument was surmounted by a gigantic trophy in stone. The whole was erected by Trojan's army to commemorate the defeat of the Dacians. A cut gives a view of the monument restored.

FRANCE.

A NEW LAW ON MUSEUMS.—The French Minister of Public Instruction and Fine Arts has lately drawn up with the coöperation of the Minister of Finance a projected law upon the civil status to be given to the national museums. After having stated that art is not a mere sumptuary matter but one of extreme utility and that museums in France are indispensable centers of education, he shows how necessary it is to rectify by some urgent reforms and at no expense of the budget the great poverty of the museums. He proposes to accord a civil status to the museums with the expectation that this will result in stimulating gifts and loans of private individuals or collective subscriptions, which little by little would constitute a museum fund. The State on its side would assist this fund by paying over to it its annual endowment, renouncing the product of the sale of prints, casts, and reproductions of all kinds, and turning over to the national museums one-half of the product of the sale of the diamonds of the Crown.

At the head of these museums there would be placed a committee consisting of eleven members named for three years by the President of the Republic, that is: Two Senators, two Deputies, a Councillor of State, a Councillor of the Cour des Comptes, five members selected outside the Administration among art critics and archæologists, and three ex-officio members, namely, the Director of Fine Arts, the Director of the National Museums and the Permanent Secretary of the Academy of Fine Arts. This committee would take charge of everything relating to questions of art, in order to insure the proper use of all the funds available for purchase.

The new law would come into effect January 1, 1896.—*Chronique*, 1895, No. 3.

PUBLICATION OF NUMISMATIC MSS.—It is announced that the Académie des Inscriptions, at its annual meeting last week, voted 1000 francs (£40) for the publication of the numismatic manuscripts left by the late M. Waddington. This refers, we presume, to his catalogue of the coins of Asia Minor, concerning which Mr. Barclay V. Head writes in the current number of the *Classical Review* :—

"This catalogue, the result of no less than forty years' study, is not merely a description of M. Waddington's own collection, valuable as that alone would be. It is a complete Corpus of the coins of Asia Minor, in all the great European cabinets, each of which was in turn visited and minutely examined by M. Waddington. Mionnet's readings (frequently lamentably deficient) were all either verified or corrected by him, and thoroughly reliable descriptions were added of hundreds of coins which are as yet unpublished.—*Academy*, Nov. 24.

TWO CASES OF THEFT FROM THE CABINET DES ANTIQUES OF THE BIBLIOTHÈQUE NATIONALE.—The collection of engraved stones, intaglios and cameos of the Bibliothèque Nationale has been twice robbed since the middle of the eighteenth century. The first and most important of these robberies, has so far as we know, been unnoticed. In 1750, Mariette published the engraved stones of this collection. The preparation of a new edition of this work reveals the unexpected fact that fifty pieces have disappeared since 1750. At first it seemed reasonable to suppose, that this robbery took place at the time of the Revolution, but this hypothesis is inadmissible since one especially attractive intaglio was replaced in 1779 by a copy. It seems more likely, therefore, that Louis XVI, at the beginning of his reign took intaglios from the Royal library, as Napoleon did in 1808. Possibly he presented these to Marie Antoinette. If we may judge from the engravings of Mariette, many of these missing stones were modern and only a few of archæological value. The second removal of objects from this collection took place on the 4th of March, 1808, when Napoleon ordered the library to remit to him eighty-two pieces of which forty-six were cameos and thirty-six intaglios. In 1832, fifty-eight of these stones were restored to the Bibliothèque, but the remaining twenty-four are still missing. If we may judge from the descriptions, a number of these were probably modern.—S. REINACH in *Chronique des Arts*, 1895, p. 97.

GALLO-ROMAN FIGURES OF EPONA.—In the *Rev. Arch.*, March to April, 1895, M. Salomon Reinach gives the first instalment of a very thorough study of Epona. In this article he considers only the Gallo-Roman representations of a female equestrian, reserving for future articles the consideration of feminine divinities associated with horses, but not mounted; also the inscriptions and texts which mention the goddess

Epona. The articles upon Epona in Roscher's *Lexikon der Mythologie* and in Daremberg and Saglio's *Dictionnaire des Antiquités* make no attempt to present a catalogue of the figures of Epona. In 1842 Düntzer was not acquainted with an image of the equestrian Epona. In 1843 Chassot de Florencourt mentions two. Becker in 1858 enumerates eight. In 1870 Lindenschmit knew of fourteen. In 1885 Weckerling brought the number of these figures to twenty. Finally in 1893 Hettner counted thirty examples of the same type.

The catalogue made by M. Reinach brings the number up to sixty: these he has drawn from various sources in France, from Luxembourg, from Germany, Austro-Hungary and from Italy. Having regard to their provenance he ascertains that such figures are very common in the neighborhood of Autun, Metz, Trier, Worms and Mainz; that is to say in the eastern end of Gaul where Roman legions were stationed. Thirty-four of these monuments are in stone; eight are in bronze and one only in painting. The exact place where most of these monuments were discovered is not known, but in two cases it may be affirmed that they were placed in stables. In dimensions they are always small and were probably placed above the doors or on the interior walls of stables. In a single case only is this female equestrian accompanied by an inscription. So far as the attitude of the goddess is concerned, we find her fifty-one times seated upon the right side of a horse moving toward the right and five times only on the left side of a horse moving toward the left. In no case is the goddess seated upon the left side of a horse moving toward the right. It seems certain that in antiquity women generally mounted their horses upon the right side, but the evidence is not sufficiently exact to enable us to assert that this was a universal rule. As for the texts one only bears upon this point; that where Tatius describes a painting representing Europa seated upon the right side of a bull. So far as monuments are concerned, those only can be considered as evidence which represent the woman as mounted upon a different side of the animal from that in which it is moving. Such monuments are extremely rare, but a number may be mentioned from Greek times down to the Renaissance in which a woman is mounted upon the right side of an animal moving toward the left. In several cases the feet of the woman rest upon a small foot-rest. This foot-rest did not disappear until the end of the Middle Ages, the time when the side-saddle was introduced. Side-saddles are said to have been introduced into England by Queen Anne of Bohemia, wife of Richard II, 1338; but we know also, that foot-rests were made as late as the Renaissance period.

The attributes of this goddess are a patera, two paterae, a patera and a cornucopia, a patera and fruit, a cornucopia alone, a vase with fruit,

a basket with fruit, fruit alone, a single fruit or flower and a crown. In one monument only does the goddess carry an infant; in several she holds upon her knees one or more small animals; usually she is heavily draped. The horse is frequently represented as trotting or ambling; rarely as in repose; more rarely still walking and twice only as on the gallop. Besides the animals which the goddess carries upon her knees, she is in five cases accompanied by a colt; in one instance only by a dog and in one other by other horses.

PORTRAITS OF FRANCIS I.—A painter named Barthelemy Guéty, surnamed Guyot, remained for a number of years in the service of Francis I as his private painter. He had this position before 1515 and preserved it until 1523. After he had lost his official position he continued, however, to work for the King. To him should be attributed a remarkable miniature of 1512, offered to Francis I on his eighteenth birthday and containing exquisite portraits of Francis and his sister. A second portrait on wood, belonging to the Chantilly collections of the Duc d'Aumale, was painted but a little later, perhaps in 1514. It is perhaps attributable to a painter named *le Matelot* or *Mathelot*, then in the king's service.—*Gazette des Beaux-Arts*, Feb, 1895.

JEAN PERRÉAL.—In the *Gazette des Beaux Arts*, 1895, p. 265, R. De Maulde La Clavière writes upon Jean Perréal, in which he gives a good account of the sculptor, adding valuable bibliographical references.

A DRAWING BY THE EARLY FRENCH PAINTER BEAUNEVEU.—A drawing of considerable size and of great beauty in the Louvre collection is reproduced on Plate 25–26 of the *Monuments et Memoires* and is of extraordinary interest for the early history of French painting, combining as it does influences from the Italian Giottesque school and the early Flemish school.

Although the texts in French archives show that painting was in a flourishing condition in France during the fourteenth century, the contempt in which all Gothic work was held for so long and which led to such wholesale destruction of works of this style has left but little upon which the critic could base a knowledge of the style of the period. The drawing here published affords an amusing illustration of the ignorance of this style which has been current until very recently. It was part of the collection formed in the seventeenth century by Baldinucci, purchased for the Louvre at Florence in 1806, which was then regarded as a work of Giotto and was thus inscribed in the inventories. Later on it was classified as by an ancient Italian artist of the fourteenth century and thus it was catalogued until 1894. The drawing is 65 cm. high and 326 mm. wide. It is done delicately in ink on parchment with wash shadows; certain parts are delicately finished, others treated more sketchily. It certainly is one of the

most important drawings of any school of the fourteenth century. Below is the death of the Virgin surrounded by apostles. Above is a group of angels carrying the Virgin's soul up to Christ, who is receiving it in the clouds surrounded by angels and the blessed. Still higher up is the celestial sphere in which the Father and the Son are enthroned, while between them is the dove of the Holy Ghost and at their feet kneels the Virgin whom they are crowning. To the left a little below the group of the Trinity are two patron saints kneeling; John the Baptist and St. Stephen. While there is considerable primitive awkwardness in the separate figures, the conception of the whole composition is remarkably fine. It evidently was a scheme for a large composition to be carried out as a fresco upon the wall of some church, although it might possibly have been for a large altar-piece.

M. Paul Durrieu who publishes a drawing in the *Monuments et Memoires* T. I, pp. 179–202, enters into an interesting discussion on the condition of French painting at this time. He illustrates it by a document of the year 1838, which shows that the Flemish painter by name John of Ghent living in Paris sells to a Countess of Artois, pictures with figures in the Roman style "a ymaignes de l'ovraige de Rome;" that is to say Italian works or works in the Italian style. The greater part of the painters then working in Paris, came from the north of France or from Flanders and they were in general, men familiar with Italian art. Hence the double current, Flemish and Italian, in French painting of this period, which is so characteristically exemplified in the drawing published.

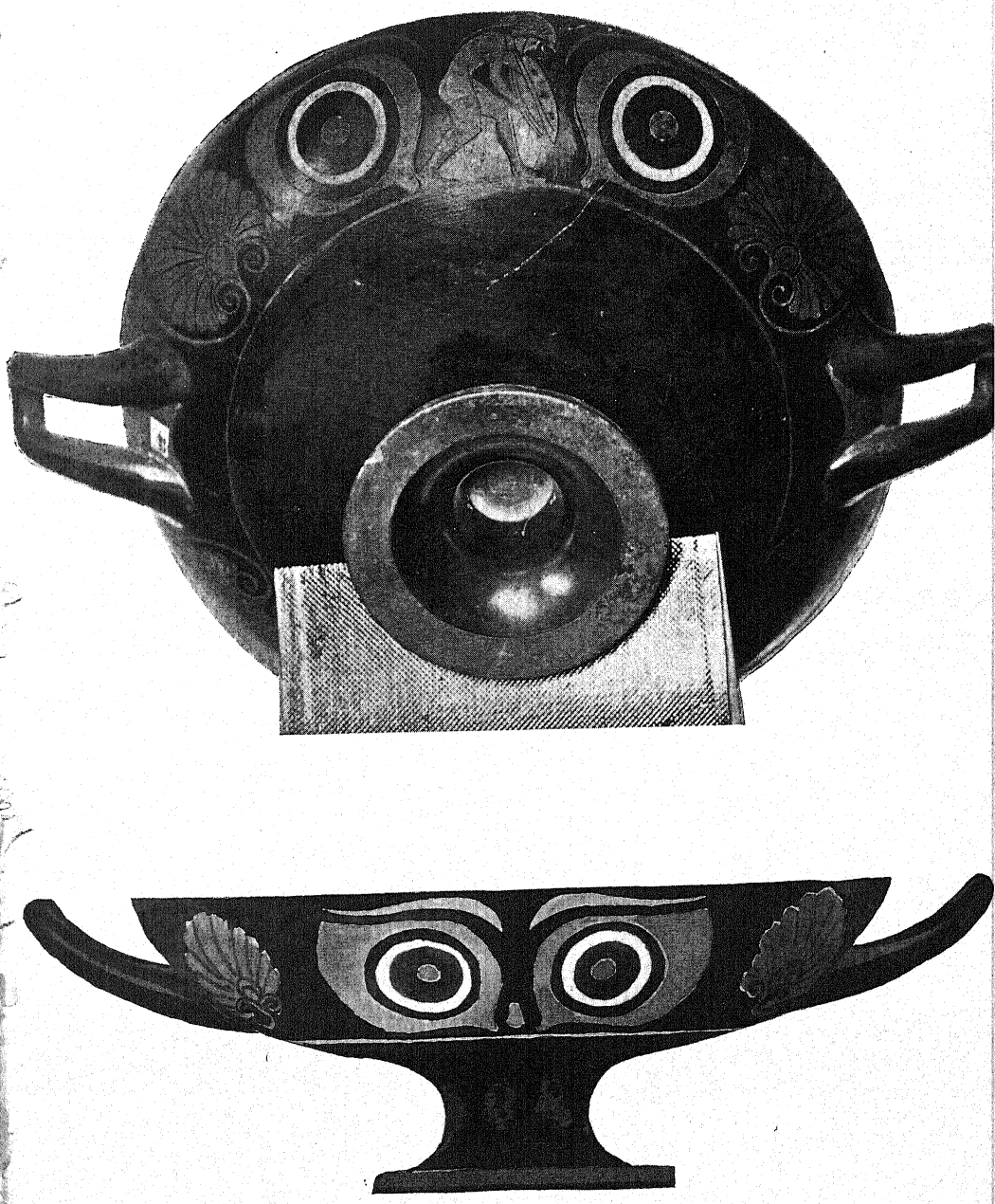
M. Durrieu, not satisfied with having shown this drawing to belong to the French and not to the Italian school, attempts to still further demonstrate its authorship. He compares it to the remarkable and famous illuminations of the psalter executed for the Duke de Berry John, brother of Charles V, now in the National Library in Paris. These illuminations of which there are twenty-four, consist of single figures of the twelve prophets and twelve apostles in groups of two. In these we see the same combination of Italian and Flemish styles. He goes into a detailed study of drapery, of individual heads, of hands and other parts of the body, showing such close analogy between the two works as to make it improbable that they could have been executed by different artists.

Now the author of the illuminations is well known. He was André Beauneveu and by him also are two illuminations in a Book of Hours at Brussels. This painter, born at Valenciennes in the province of Hainant, flourished as early as 1360 in his native country, but shortly after came to Paris to seek fortune at court and afterwards in the service of the Duke de Berry. For both of these noble patrons, he ex-

ercised his double faculty as a sculptor and as a painter and the remarkable works which he executed between 1367–1390 and the admiration which they excited at the time, show that Beauneveu was one of the greatest artists of his time. It is an interesting fact, that the two patron saints in the drawing would seem to connect it in some way with the works then executed by the artist at Bourges for the Duke de Berry, for St. Stephen is the patron saint of the Cathedral of Bourges and John the Baptist was the patron saint of the Duke de Berry. The writer closes with the conjecture that the original frescoes for which the drawing was made, may some day be found upon a high and narrow wall behind the altar in the chapel of the Trousseau family in the Cathedral of Bourges, which already existed in 1405 and the proportions of which would admit of the presence of such a painting, though at present it is entirely covered with a thick white-wash.

SEPULCHRAL STATUE OF LOUIS DE SANCERRE, DIED 1402.—Louis de Sancerre, Constable of France, who died in 1402, was buried at Saint Denis in the chapel of Charles V. His body was removed with that of the kings and other great personages in 1793 and his sepulchral statue was placed in the Musée des petits Augustins. The reclining statue of the Constable in fine white marble, represents him in full armor with closed eyes and folded hands. The obliquity of the eyes has been already noted by M. Courajod (*Alexandre Lenoir* T. III, p. 416) not only in the case of this statue, but of a dozen others made between the years 1393–1497, which seems to indicate a peculiar fashion amongst sculptors of that time, but in the present instance at least, we know from the *Chronique de Charles* VI, Lib. XVIII, Cap. 3, that Louis de Sancerre suffered from strabismus.—ANDRÉ MICHEL, *Mon. et Mem. Acad. Inscr.* T. I, p. 171.

AIN.—THE GROTTO OF THE HOTEAUX.—The department of the Ain again attracts our attention by reason of important contributions to prehistoric studies. This grotto opens into the left side of the valley of Furans in the territory owned by the commune Rossillon. In front of it is a terrace 15 m. long which was excavated in 1894 by M. l'Abbé Tournier and M. Ch. Guillon. The reindeer very abundant in the lower strata appears less frequently in the central layers and disappears altogether in the upper strata. Industrial objects are here found in the period of the reindeer. Besides perforated shells and teeth and an indeterminate sculptured object, there were found two engraved clubs. One of these was found in the lowest stratum; on it are still distinguishable some circular engraved lines. The second is more remarkable and contains an engraved reindeer in the act of bellowing. In the lowest stratum there was also found a skeleton of a youth of



A KYLIX, BY THE ARTIST PSIAX.

sixteen or eighteen years. All supposition of posterior burial is absolutely inadmissible. The funerary furniture consisted of perforated teeth of a stag, several flints and a club. This burial is analogous to those at Menton, at Swordes and at Chancelade.—E. D'ACY, in *Rev. Arch.*, March–April, 1895, p. 240.

ANGERS.—An interesting discovery was made on the 16th of September in the Cathedral of Angers during the work of restoration. Underneath the choir have been found the two coffins which seem to be those of the good king René d'Anjou and of his first wife Isabelle de Lorraine. King René was born at the castle of Angers, January 16, 1409, and died at Aix-en-Provence, July 10, 1480. His body was taken to Angers and placed in a vault constructed in the Cathedral. This artistic tomb was destroyed in 1794; only the vault remained intact. In the two coffins of lead placed side by side were found, with the bones, a crown, a sceptre and a thin metal sphere. The coffins will be covered again with lead and replaced in the vault.—*Chronique des Arts*, 1895, p. 310.

AVIGNON AND S. DIÉ.—We read with the greatest apprehension that the French authorities, ever too exacting in that respect, intend to "restore" the famous Romanesque church of Notre Dame at St. Dié in the Vosges. It is to be feared that this proceeding will not be less drastic than that which befell that still more magnificent Romanesque relic, the cathedral at Chartres, where two inches of the whole surface of the building were cut away, with what results as to the reveals of the windows and the mouldings it is easy to imagine.

The French journals assert that Avignon, hitherto so interesting on account of its antiquity and the historic veracity of its streets and public and private buildings, ranging as they do from Roman, Gothic, and Renaissance times, is to be adapted, as Rome, Florence, and Paris have been, to "modern requirements." It is actually proposed to restore the very important Roman amphitheatre at Orange, the best preserved relic of its class, in order annually to hold within its arena performances of classic plays. That the time-injured portions of the amphitheatre should be preserved and even repaired is certainly desirable, and antiquaries who are artists will not protest against revivals of the antique dramas, but "restoration" is quite another thing.—*Athenæum*, Sept. 8.

BORDEAUX.—In the *Mélanges d'Arch. et d'Hist.* for October, 1894, M. Georges Goyau makes a careful study of ancient Bordeaux as illustrated in the Imperial Library of Vienna. This study is based particularly upon the *Atlas Major sive Cosmographia Blaviana*, published in eleven vols. folio in 1662, by Jean Blaeu. A Dutch geographer, Laurent Van der Hem, who lived at Amsterdam in the second half of

the seventeenth century, possessed a copy of this Cosmographia, to which he made so many additions that upon his death the work numbered forty-three volumes folio. From this important source M. Goyau is enabled to amplify our knowledge concerning the ancient Hotel de Ville, the Palais Gallien and The Piliers de Tutelle, and of the lost sepulchral stone bearing the portraits and inscriptions of Sabinianus and Tarquinia Fastina. All of these ancient monuments are now published from the seventeenth century drawings of Van der Hem.

BRASSEMPOUY.—At Brassempuoy near Pau have been found interesting ivory statuettes dating from a period known as that of the Madeleine and evincing the vigor and skilful execution of the very early French sculptors. One is the hilt of a dagger representing the torso of a woman; another, rudely carved, seems to be a child's plaything. The others are broken, but two of these have a special interest because of their bearing many characters resembling the known types of Oriental art, especially Egyptian.—*Chronique*, 1895, p. 318.

CHASSENON.—At Chassenon in the Charente, the site of the old Cassinomagus of the Romans, excavations have brought to light a statuette, 60 cm. in height, representing a divinity of the Gallic Pantheon in the attitude of a Hindu Buddha and wearing on his neck the torque or Gallic necklace enlarged at the ends.—*Chronique*, 1895, p. 318.

CLUNY MUSEUM ACQUISITIONS.—The Musée de Cluny has obtained the famous reliquary in Limoges enamel which originally held the bones of St. Valeria. It is a magnificent and elaborate example, measures 26 cent. high by 15 cent. wide, is enriched with a figure of the virgin martyr seated upon a throne, holding her head in her hand, and wearing a sumptuously coloured and much jewelled dress, including a mantle. The head, *repoussé* and chiselled, is in high relief. Other figures, including that of St. Martial of Limoges, add to the interest of this relic.—*Athen.*, Aug. 10, 1895.

Three very interesting wooden statues have recently been given to the Cluny Museum. The most interesting is a statue of the Virgin by an unknown German artist of the close of the XV century. She is enthroned, her head covered with a crown from which heavy tresses of hair escape: her very full robe falls about her in a multitude of folds studied with minute care. With one hand she turns the leaves of a large Book of Hours, lying on her lap. With the other she holds the infant Christ, whose body is bound by a kind of heavy wreath of flowers and who tries to turn the pages of the book. The type of the Virgin is that rather heavy gracefulness affected by the early German artists, such as Albert Dürer and Martin Schongauer.

The other two statues of natural size represent the Virgin and St. John and form part of a Crucifixion scene by some French sculptor of the late Middle Ages. The Virgin draped in a full mantle casts down her eyes sorrowfully and raises her hands in prayer. The simplicity of this face contrasts with that of the Apostle, framed in a heavy growth of hair and raised with an expression of deep grief.—*Paris Temps*, in the *Chronique*, 1895, No. 4.

LOUVRE ACQUISITIONS.—Among the recent additions to the Louvre are two magnificent Royal cups recently found in Egypt by Dr. Fouquet. One of them bears the name of Sultan Bibars and the other that of El Noiad. The inscriptions are well preserved and interesting.—*Chronique*, 1894, No. 26.

The Louvre has obtained a great prize by purchasing a funeral statuette in acacia wood, carved in a naturalistic manner, and therefore, probably, of extreme antiquity, representing a priestess of Minou, standing upon a rectangular base which is covered with inscriptions.—*Athenæum*, Aug. 25.

The Louvre has just purchased for the department of Middle Ages and the Renaissance a copper plaque of the fourteenth century, in which are relief figures on a background composed of blue and green enamels of great beauty.—*Chronique*, 1895, No. 9.

BAS-RELIEF OF CARDINAL FRANCESCO ALIDOSI D'IMOLA.—The Museum of the Louvre has recently acquired a bas-relief in bronze of Italian workmanship of the Renaissance. It is a bust and profile of Cardinal Francesco Alidosi d'Imola, Bishop of Pavia in 1505 and Ambassador to Bologna 1508–1510.—*Chronique*, 1895, p. 286.

STATUE OF ATHENA WITH THE CISTA.—In the *Mon. Grecs.*, Nos. 21–22, M. Paul Jamot publishes for the first time a statue of Athena acquired by the Louvre in 1880. This statue was found in Krete near Selino on the southern coast of the Island. It represents Athena standing clad in a long diploidion armed with the aegis, wearing a Korinthian helmet and carrying in her left hand the *cista* in which she had enclosed the infant Erichthonios. The youthful Erichthonios is here represented in the form of a serpent whose head and neck emerge from the *cista*. An interesting bronze statue in the museum of Leyden presents a very similar type to this Athena of the Louvre. In attitude and expression the Athena of the Louvre belongs to the type known as the peaceful Athena, and as the Athena Lemnia of Pheidias is considered as the source from which statues of this type have been derived, Jamot enters here upon a criticism of Furtwaengler's identification of the Athena Lemnia. He refuses to admit that the head in Bologna is the head of an Athena or that it represents Attic workmanship. He looks upon it as the head of an athlete of the school of Polykleitos.

He prefers to consider that the Lemnian Athena wore a helmet. He compares the present statue with the Eirene of Kephisodotos and finds in this statue an earlier type. He suggests with some misgiving, that this statue may represent the Athena of Demetrios mentioned by *Pliny, N. H.* XXXIV 76, and that the statue dates from the year 400. Furtwaengler replies to Jamot's criticisms in the *Classical Review*, 1895, p. 269. He shows that Jamot is not aware of the fact that there are two statues in Dresden and that the head of the one belongs to the torso, since the broken surfaces exactly fit one another, fracture for fracture. Also that he did not notice the striking illustration of the statue afforded by an ancient gem (*Meisterwerke*, pl. XXXII, 2). Jamot had asserted that the head is too small for the statue, but Furtwaengler replies that the relation of the height of the face to that of the whole figure is exactly the same as in the canon of Vitruvius, of the Doryphoros of Polykleitos and in the female statues of the Pheidian period. In addition to the examples, already cited in his book, of female heads with short hair, he calls attention to two further examples which represent Athena with even shorter hair than she has in the Bologna head. First, an Attic krater in Vienna on which Athena is represented without a helmet and with hair quite short, like that of a youth. Secondly, a terracotta relief of the Glyptothek at Munich, No. 39 E.

In reply to Jamot's assertion that the Bologna head is not Pheidian but Polykleitan, Furtwaengler makes a counter assertion that Jamot is ignorant of the most elementary differences that distinguish a Polykleitan head from a Pheidian head. He admits that it is nowhere expressly stated that the Lemnian Athena was without a helmet, though this may be inferred from a combination of the statements made by Lucian and Himerius, whereas, the preference of Jamot for a helmeted Lemnian Athena he declares to be merely arbitrary.

THE HEAD OF AN ATHLETE.—In the *Mon. et Mem. Acad. Inscr.*, T. I., p. 77, Étienne Michon republishes with fine illustrations the bronze head of an athlete, acquired by the Louvre in 1870 from Beneventum. The head reflects the style of Polykleitos, not however without some admixture of later influences.

LOUVRE.—AN EARLY MEDIÆVAL IVORY.—The Louvre has recently purchased an early ivory carving of great interest and which is unique in style and subject. It is a thick rectangular plaque carved in the tusk of an African elephant. The face of it, which is slightly oval, is carved with a peculiar subject. Under an architectural dais, representing the buildings of the city, is a group of figures standing around a central seated figure, which is considerably larger in size than all the others. He appears to be a saint, perhaps an apostle repre-

sented as teaching; it may be St. Paul preaching to the Gentiles. He wears a nimbus, long hair and a pointed beard. His forehead is broad and high and bald. While the type of this figure is somewhat traditional and commonplace, the other figures grouped about him in very high relief to the number of thirty-five, are far more original in type. They are all listening with great attention, with their heads bent forth and toward the speaker; some of them carry tablets in their hands; all of them are bare-headed and wear long hair cut straight across the forehead, and all also wear a short beard; all of them wear the same costume—a robe or tunic with folds and embroideries and the chlamys with rich border fastened over the shoulder with a fibula.

On top of this scene, supported by piers of masonry on the front of the relief, rises an ancient city, which can only be studied by examining carefully the top of the ivory. All the details are given of the narrow streets, of the buildings with roofs covered with imbricated tiles, with windows and balconies filled with spectators, all listening to the preacher with greatest attention. What gives an exceptional interest is the peculiar arrangement of these buildings. Their very irregularity, their characteristic form, the vast semi-circular portico in the centre, all show that some special city was intended. Perhaps it was Rome itself. M. Schlumberger, who illustrates this ivory in the *Monuments et Mémoires*, T. I., pp. 165–170, finds some difficulty in assigning a date to this work. He places it in the ninth century, while citing the opinion of M. Saglio that it is very much earlier, comparing it to the mosaics of the sixth and seventh centuries in which are similar representations of towers and buildings.

THE IVORY HARP OF THE MUSEUM OF THE LOUVRE. — The origin of this rare and curious instrument has occupied archæologists ever since it was presented to the museum by Mme. la Marquise Arconati-Visconti. Upon it is a monogram composed of the letters A and Y, interpreted by some as the first and last letters of the motto "*Aultre n'aray*" of the Duke of Burgundy, Philippe le Bon, or the initials of Antoine of Burgundy and his wife Isabelle of Luxembourg. A third explanation is now proposed. This is suggested by the ornaments composed of the fleur-de-lis, which suggest that the harp belonged to two persons connected with the court of France, whose names began with A and Y. In accordance with this condition we find in the fifteenth century the Duke Amédée IX of Savoy and his wife Yolande of France, who upon the death of her husband became Regent of Savoy. Yolande was a patroness of the arts; she erected or decorated numerous buildings and possessed artistic objects of all kinds in great abundance. Inventories recently published show that many pieces executed for her bear the letters A and Y. The sources from

which may be gathered the proofs for this interpretation of this monogram are: Leon Menabrea, *Chroniques d'Yolande de France, duchesse de Savoie;* Vayra, *Inventaires des Chateaux de Turin, de Chambéry*, etc.; Dufour et Rabut, *Peintres et sculpteurs de Savoie.* The workmanship of the harp in the Louvre is that of the period of Yolande and in style corresponds to the monuments of Savoy of the second half of the XV century. This province remained for a long time French; it was not until the XVI century that it became Italian. The inscription *En Bethlean*, found upon one of the reliefs, seems to indicate a Flemish origin. Flanders at this time was renowned for the manufacture of musical instruments and the majority of the best vocalists and organists also came from the provinces of the north. Three little basreliefs representing the Nativity, the Massacre of the Innocents and the Three Wise Men, recall the style of ivory diptychs and miniatures of the XIV century. It seems, therefore, probable that the sculptor repeated here an earlier model of a harp and made but few changes, such as the monogram and the fleur-de-lis.—A DE CHAMPEAUX in *Chronique des Arts*, 1895, p. 108.

IVORY CARVING OF THE CORONATION OF THE VIRGIN.—In 1861 the celebrated collection of Soltykoff was dispersed in Paris, when an ivory carving of the XIII century, representing the Coronation of the Virgin, was secured for the Museum of the Louvre. The origin of this group is uncertain, but it seems to have been made during the reign of Philippe III, le Hardi. In grandeur of conception and simplicity it may well be compared to the finest of French sculptures of the Cathedrals of Rheims or of Chartres. The question naturally arose as to whether the artist did not intend to make a more complicated scene analogous to the basreliefs representing the Glorification of the Virgin on the tympana of Gothic cathedrals. In 1878 at the Retrospective Exposition two figures of angels were sent to the Trocadero by the Museum of Chambéry. The distinction and style of these figures and the character of their painted ornament made it appear at the time that they probably belonged with the group in the Louvre, and may have constituted the five-figured group of the Coronation of the Virgin mentioned amongst the treasures of King Charles V, published by Labarte. The municipal council of Chambéry has now presented the two angels to the Museum of the Louvre. M. Molinier publishes the entire group with a fine photogravure in the *Gazette des Beaux Arts*, 1895, p. 397.

MANS.—Two small pictures of great value, the Adoration of the Magi, of the Florentine school of the XIII century, and Cupid and the Lion, a Flemish painting on copper of the XVII century, by Franz Franck, have been stolen from the Museum of Mans. Suspicion falls

upon two Englishmen who remained an entire afternoon in the gallery where these paintings were exhibited.—*Chronique*, 1895, p. 310.

A REARRANGEMENT OF PAINTINGS IN THE LOUVRE.—Since the beginning of last year important changes have been undertaken in the galleries of the Louvre. The Directors have had a double end in view: (1) to improve the classification from the scientific point of view in separating as far as possible schools which had hitherto been confused, and in bringing together works by the same masters or artists belonging to the same local group and period; and (2) to give these works greater value by placing them nearer the level of the eye and allowing them more space. This work has been begun already with the northern schools—Flemish, Dutch and German—which had been mixed together without distinction. Considerable space has been secured by transporting to the Museé de la Marine the series of the ports of France by Vernet. The space occupied by these paintings has been given to the paintings by Lesueur of the history of St. Bruns, and the room which these occupied is now devoted to the paintings of the German school, now for the first time separated in the Louvre from the Flemish and Dutch schools. In the adjoining room have been placed the paintings of the English school, of which, unfortunately, there are but a few. The separation of the Flemish and Dutch paintings has been attended with greater difficulty, owing to the impossible character of the building; nevertheless, progress has been made in the direction indicated. The demand is felt, and may soon be realized, to break the monotony of the long gallery by establishing in its place a series of small rooms like those at Dresden and Munich. Next to the Northern School has been undertaken a rearrangement of the Italian pictures. One room has been already arranged containing Italian pictures of all schools up to the XV century and Florentine paintings to the end of the XV century. The later Italian pictures will be brought together and arranged by schools in the first sections of the Grand Gallery.—*Chronique*, 1895, p. 87.

THE SALON CARRÉ OF THE LOUVRE.—Much has been written recently concerning the rearrangement of the paintings in the Louvre in accordance with the principle of historic sequence, some critics going so far as to demand the suppression of the Salon Carré. The *Chronique des Arts* takes a stand against this tendency on the ground that the great majority of visitors to the museum are not interested in historical study, but desire only to satisfy their sense of beauty. Some have suggested that this Salon Carré should be devoted to the paintings of one school. In reply to this it is remarked that this room has been known for four centuries as containing a collection of masterpieces, the most celebrated in the national collections. To place there the

paintings of a single school would seem to give that school a pre-eminence above all others. It is not impracticable that the museum in general should be arranged upon historical principles, and a small collection of masterpieces from various schools might still be exhibited in the room which has been devoted to this purpose for so long a period.

NANCY.—Important discoveries have been recently made by the Archæological Society at Nancy. Besides unveiling several centuries of the history of Nancy, they have furnished a rich collection of Merovingian armor of the VI century: shields, battle-axes, spears, lances, not to speak of jewels in gold and silver and industrial objects of bronze and pottery. The excavations have already brought to light seventy tombs of warriors, women and children. These were oriented toward the east, and the feet of the dead turned toward the Meurthe. At the foot of each body there was found usually placed a vase of coarse pottery. The bones were well enough preserved, but crumbled easily. There have also been found bronze chisels, Gallic coins, enameled glass, a gold piece of the time of Justinian and a silver fibula. These objects have been transported to the palace of the Dukes of Lorraine and placed in the Museum.—*Chronique*, 1895, p. 195.

POMMIERS.—Excavations at Pommiers (Aisne) have uncovered a necropolis comprising as many as three hundred tombs, dating from the VII to the XIV century.—*Athenæum*, Sept. 1.

PUTEAUX.—An interesting discovery was made by two workmen engaged in digging in a park at Puteaux. Two well-preserved plaster sarcophagi, each containing a body, were laid bare. What is described as a varnished terracotta vase, some bits of bronze and glass and two Roman bronze medals were also found.—*N. Y. Evening Post*, Jan. 26.

RHEIMS.—In May, 1894, M. Alvin Beaumont and Mme. Lapersonne, two dealers in antiquities, made an exchange, the latter giving the former a religious painting upon copper in exchange for two Louis XV armchairs and a François I box. When the painting was cleaned it turned out to be a very fine Visitation by Rubens. Mme. Lapersonne then went to the court to secure a nullification of the exchange. After an interesting trial her application has been rejected.—*Chronique des Arts*, 1895, p. 316.

ROANNE.—GALLO-ROMAN PAINTED VASES IN THE MUSEUM OF ROANNE.—In the consideration of Gallo-Roman pottery the attention of archæologists has been largely taken up with that class of vases which has figured ornamentation stamped upon them. This class of pottery, called Samian, an economical imitation of vases in precious metals, was

widely scattered in the ancient world, and almost entirely took the place of painted pottery. We may nevertheless recognize in Roman Gaul some place where the ancient traditions of painted pottery survive. Such a collection exists at the Museum of Roanne. These vases come exclusively from local sources; they were gathered from the soil of the town of Roanne, the ancient Rodumna. It was in the year 1844 that this museum was founded, but from that time until 1891 the collection had little importance. In 1893 the museum undertook methodical excavations in the Rue S. Jean, when some sixty funerary vases were found, amongst which five were painted. During the spring of 1894 a fruitful deposit of ancient antiquities was found in the quarter called Livatte, the heart of the ancient Roman village. These excavations gave proof of the great abundance of painted pottery at Rodumna and at the same time of the poverty of its inhabitants.

The Museum of Roanne now possesses sixteen of these painted vases, besides many fragments. Although destined for ordinary use, these vases are well made from a paste which is hard and homogeneous. In form there is no great variety. They belong to three definite types; the first is a bowl, the upper edge of which is strengthened by a rounded rim; the second type is a sort of *olla* of globular character, sometimes provided with a cover; the third type is that of an ovoidal *guttus*. All of these vessels are without handles. The shape, although characterized by indisputable elegance, is not as original as the decoration. From the point of view of decoration, they may be divided into three classes: first, vases whose entire surface is covered by designs of a brown color, unaccompanied by concentric zones; second, vases with designs of violet brown color between concentric zones of red or brown; third, vases without designs other than the zones of red or brown. All of these vases have a primary coating of white. The first class, consisting of *ollæ*, is funerary in character, and forms a series analogous to the white *lekythoi* of Attica; the ornamentation of these vases is strictly geometrical. The second class consists of *gutti* and bowls, and presents conventionalized floral as well as geometrical decoration. The third class contains vases of the same character of paste and color as the rest, but is decorated only by concentric zones It may be observed that the upper zone is a single broad band of red or brown, and that the lower band is divided by a central line of different color. Pottery of somewhat similar character has been found in other parts of Gaul; such are the vases found by M. Rossignol at Montans, near Gaillac, and those by M. Bulliot at Mont Buvray and by Dr. Plicque at Lezoux. It is unnecessary to assume that these vases must be traced

to an ultimate origin in Greece or the Orient, notwithstanding the fact that Syrian influences upon imperial Gaul were very important. The ornamentation being chiefly of a geometrical character, without figured design, may very easily have had its origin in Gaul itself.—JOSEPH DECHELETTE in *Rev. Arch.*, March–April, 1895, p. 196.

SAUVIGNY.—An article is published in the *Magasin Pittoresque* (January 15) on the Zodiacal Column of the Church of Sauvigny (Allier). It belongs to the XII century, and about half of it is wanting. On one of its faces are superposed extremely high reliefs, representing rustic scenes which depict the work of each month of the year. Of these there remain only those belonging to August, September, October, November, and December. On another face are the corresponding signs of the Zodiac; on the third are fantastic animals. Each of these series has a rich decorative border of extremely successful execution.—*Chronique*, 1895, No. 4.

TOULON.—DISCOVERY OF AN EARLY FRENCH PAINTING.—In the *Gazette des Beaux Arts* (3d series t. v., page 159) M. Pératé describes the interesting altar piece belonging to the Church of Six-Fours at Toulon, and attributed to Jean de Troyas. M. Reinach calls attention in the *Chronique* (1894, No. 41) to the deplorable condition of this work, which will soon be entirely destroyed by dampness or worms. The signature has almost disappeared. But M. Vidal has discovered near Toulon, in the small church called des Arcs, a replica of this altar-piece in perfect preservation. It appears to be not a simple copy, but a repetition with important variations, containing two more compartments. It has unfortunately suffered from brutal modern repainting, which can be, however, removed.

VERDUN.—The Hôtel de Ville at Verdun, one of the most important monuments of the XVII century in France, has been almost entirely destroyed by fire, and, with the building and many, if not most of the antiquities and works of art which it contained.—*Athenæum*, Sept. 22.

BELGIUM.

PAINTINGS BY RUBENS.—The Museums of Brussels and Antwerp have each acquired recently an excellent example of Rubens. That of the Brussels Museum is a sketch for the ceiling at Whitehall, and representing the apotheosis of James I of England. This sketch is well finished, and it is suggested that Van Dyck collaborated in it. That of the Museum of Antwerp is a small painting, one of the best works of the master, representing the Prodigal Son. It was bought for 45,000 francs.—*Chronique des Arts*, 1895, p. 186.

GALLO-ROMAN RELIEFS.—During the "restoration" of the XIV century St. Medardus Church, at the little town of Werwick, in West

Flanders, two obelisk-like monoliths were discovered in the earth under the bench of the Kirkenvorstand, where they seem to have been buried. This "find" is of great value, both archæologically and historically, as it evidently belongs to the Gallo-Roman period. The sculptures, in white marble inlaid with black marble, are executed with extraordinary fineness, and represent two trophies made up of groups of Roman armour and weapons. These bas-reliefs, nineteen centuries old, belonged to the heathen temple which the Romans had built in Werwick, which Cæsar calls Veroviacum. The discovery has settled a question long in debate among the Flemish antiquaries, namely, to what deity the temple was dedicated. The sculptures plainly indicate Mars, the god of war. There is some hope that further discoveries may be made.—*Athenæum*, Aug. 25.

MEMLING.—M. Emile Michel writes a sympathetic brief study of Memling in the *Gazette des Beaux Arts* (1895, January) à propos of a charming little picture by the master recently given to the Louvre by Mme. André. It belonged to the collection of her husband, M. Edouard André, having previously been in the Sécretan and Herz collections. It appears to be the pendent of the *Marriage of St. Catherine*, given to the Louvre by M. Gatteaux, though its coloring is less brilliant. In the foreground kneels the donor and over him stands his patron saint, John the Baptist. They are placed in the midst of a charming landscape, in the background of which three miniature subjects are set: St. John on the island of Patmos, St. George spearing the dragon and delivering a princess, and the woman of the Apocalypse attacked by the seven-headed dragon and delivering to an angel her new-born son. The preservation of the picture is perfect, its style is exquisite and in the finest manner of the artist.

ANTWERP.—The Public Gallery of Antwerp with the assistance of the city and of private subscriptions has purchased the famous picture of Christ among the Angels, attributed to Memling and which has attained considerable notoriety since the publication by M. A. J. Wauters of Studies on Memling in 1893. The author pays especial attention to the above picture which is a triptych and he proves satisfactorily that it is to be attributed to this great master.—*Chronique*, 1895, No. XIX.

GERMANY.

ROMAN WALLS.—The *Archæologischer Angeizer*, 1894, pp. 152–169, contains a report of the *Activity of the Imperial Limes-Commission* from the end of November, 1893, to the middle of December, 1894. Eighteen persons conducted excavations, etc., in different places.

Numerous Roman camps and forts were investigated, and considerable portions of the wall.

ACQUISITIONS OF ANTIQUITIES IN WEST-GERMAN COLLECTIONS.—The *Archæologischer Anzeiger* (1895, pp. 43–49) contains reports of *Acquisitions of the West-German Collections of Antiquities* by H. Lehner. The collections mentioned are those at Metz, Mengen, Rottweil, Konstanz, Ueberlingen, Kalsruhe, Mannheim, Darmstadt, Hanau, Wiesbaden, Speier, Worms, Mainz, Kreuznach, Birkenfeld, Saarbrücken, Trier, Bonn, Köln, Neuss, Elberfeld, Crefeld, and Xanten.

THE ROMAN LEGION ON THE RHINE. — In the *Westd. Zeitschrift*, (XII, 3) E. Ritterling writes on the revolt of Antonius Saturninus, in 89 A. D., to show how the Roman Legion on the Lower Rhine, on account of its attitude on this occasion, received beside the title *P(ia) F(idelis)* also that of *D(omitiana)*, who was afterwards withdrawn on account of the *damnatio memonæ* that impended over Domitian. This honorable title PFD was also shared by the Rhenish fleet and the auxiliaries. The writer transfers in consequence to the Lower Rhine the center of the struggle with Antonius.

AACHEN.—THE CARLOVINGIAN PALACE.—The following study by Reber has appeared: *Der Karolingische Palastbau* II. *Der Palast zu Aachen*, von F. v. REBER (*Abhl. d. Hist. Kl. d. K. Bayer. Akad. d. Wissenschaft.* Bd. XX, s. 189 ff. The important remains of the Imperial Palace at Aachen have again attracted attention, and especially its resemblance to Byzantine models. F. v. Reber has been enabled to correct the accepted drawings and explanations of C. Rhoen, especially in the reconstruction of the atrium as a three-aisled hall. v. Reber's explanations exhibit considerable knowledge as well as independence.—H. KEDLETER in *Correspondenzbl d. Westd. Zeitsch. f. Ges. u. Kunst.*, 1893, No. 89.

BERLIN.—ADDITIONS TO THE MUSEUM.—Among recent acquisitions are: (1) an Adoration of the Shepherds, by the rare painter of Cologne called the "Master of the Annunciation;" (2) a Roman head of a young man called "A Marcellus;" (3) an enamelled terracotta relief by Luca Della Robbia, on a blue ground, representing the Virgin and Child blessing; (4) another terracotta Virgin and a portrait of a young man in high relief, by Andrea Della Robbia; (5) a Florentine *cassone* and a monumental door richly encrusted, executed for the Medici in 1470.—*Chronique*, 1895, No 4.

MADONNA BY ALBRECHT DÜRER.—A half-length picture of the Madonna attributed to Albrecht Dürer, and discovered at Florence by Dr. Bode, is now exhibited at the Royal Picture Gallery at Berlin. The painting, dating from 1518, contains Dürer's monogram.—*Athenæum*, August 4.

RENAISSANCE BRONZES.—The Museum of Berlin has recently enriched its collection of Italian Renaissance bronzes by the addition of a number of important pieces, some of which have come from the well-known collection of Henry Pfungst, of London. Mention may be made of a bust of a man of early XVI century Florentine workmanship, a little bronze David by Donatello, being a study for the statue at the Palazzo Martelli, a St. Jerome by Bertoldo, a horse which recalls the studies of Leonardo for the equestrian statue of Sforza, a group of Herakles and Nessos by Giovanni de Bologna, and an allegorical group of Virtue Overcoming Vice, attributed to Benvenuto Cellini.—*Chronique des Arts*, 1895, p. 301.

FREIBURG IM BREISGAU.—REDISCOVERY OF AN ALTARPIECE BY HANS BALDUNG.—One of the chief glories of the Cathedral of Freiburg was formerly the altarpiece by Hans Baldung, which Johann Schnewlin put up in his chapel. This existed still in 1820, though no longer in the same place when Heinrich Schreiber wrote his history of the cathedral. He describes this altarpiece as consisting of a center and two wings. In the center is a figure of the Madonna and Child carved in wood and set against a painted background, on one side of which is represented a city situated by a lake and on the other a garden of roses. The wings contained, on the inside, paintings representing the baptism of Christ and St. John the Evangelist, on the outside the Annunciation. In tracing the history of this altarpiece we find that at some time between 1820 and 1835 it must have been taken apart, for in the latter year Glänze made a Gothic frame for the inner paintings of the wings. In the same year he made a Gothic frame for the paintings upon the outside of the wings. These paintings decorated the altar of a chapel in the cathedral until 1880, when they were removed and put in charge of the cathedral authorities. From an oversight they were omitted by the author in his catalogue of paintings of Hans Baldung, published in 1894. Now he is able to announce that the central portion of the altar, a fine wood carving with its painted background, has been discovered, and is well preserved in its original condition. Further notes of it will be given hereafter.—G. V. TÉREY in *Repert. f. Kunstwissen.*, XVII, 6.

HANAU.—ROMAN REMAINS.—During the construction of a quay on the Main Canal at Hanau, the northern end of the ancient Roman bridge across the Main has been laid bare. Further excavations have rendered it certain that there was a considerable Roman settlement in the neighborhood of Hanau. Several interesting "finds" have been made at the end of the Roman bridge, but by far the most important is the large quantity of Roman coins. They constitute an unbroken series of all the Emperors from Claudius to Antoninus Pius and his

wife Faustina, covering the period from 41 to 161 A. D. The greater number belong to the years between 81 and 117. Prof. Wolff, who reports on this discovery in *Hessenland*, says that the other articles afford a close glimpse into the life of the Romans on the frontier. "One feels profoundly moved," he writes, "in taking out of the river articles nearly two thousand years old. We seem brought into very near contact with the fourth Vindelitian cohort, which was posted here to guard the passage of the Main, and which demanded from every civilian who passed the bridge the obolus for the river-god."—*Athenæum*, Sept. 15.

HEIDELBERG CASTLE.—In October, 1894, the Ministry of Finance appointed a committee for the preservation of the sculptured figures of the Heidelberg Castle. Attention was called to the unfortunate condition of these figures by a sculptor, Professor Heer, in 1886. Of the sixteen figures of the Otto-Heinrichsbau, six were already so damaged as to render their continuance upon the building a matter of doubt. Worse still was the condition of the figures upon the Friedrichsbau; of the sixteen figures in niches, only four were found suitable to be left in position. Accordingly, in 1891, orders were given that eight of these figures should be replaced by new statues made at Karlsruhe. For these new figures portions of the building itself had to be restored, and the old figures were placed in the chapel of the Friedrichsbau. The committee contemplates also a proper restoration of the interior of the Freidrichsbau and a restoration of its roof in its old form, but fireproof. These proposals have the sanction of the Grand Duke of Baden and of the Ministry of Finance, and it is expected that an appropriation will soon be made for this purpose.—*Kunstchronik*, Jan. 31, 1895.

THE ARCHITECT OF THE CASTLE.—Light is beginning to be thrown upon the builders of the Otto-Heinrichs and Friedrichsbau of the Heidelberg Castle. Up to the year 1868 we possessed only the scanty notice published by Leger in 1819, and based upon a letter by Churfurst Friedrich II, which mentions Jakob Haider as his master of the works. Haider was doubtless the architect of the three towers on the east side of the castle, which were finished just before 1556. A certain Engelhardt was the architect for Friedrich II in 1545. Somewhat later, on March 7, 1558, we find a contract of Otto Heinrichs with Alexander Colins from Mechelen, a sculptor from Belgium. In this contract architects from the Pfalz, namely, Caspar Fischer and Jacob Leyder and a sculptor Antonj are also mentioned. The Otto-Heinrichsbau is so thoroughly sculptural in character and so evidently connected with contemporary decorative motives from the Netherlands as to leave little doubt that Alexander Colins was the author

of the work. For the Freidrichsbau, it has now been proved by Professor Czihak that the architect was Johannes Schoch, who also built the Rathaus in Strassburg. It has also been proved by Schneider that the chief sculptor of this building was Sebastiam Götz from Chur.—MAX BACH in *Kunstchronik*, 1895, p. 33.

INGOLSTADT.—THE ST. MORIZ PFARRKIRCHE.—The parish church of St. Moriz is the oldest and once the only parish church of Ingolstadt. It was consecrated on the 22d of September, 1230. Recently there have been found on the right wall of the choir some interesting paintings, of which mention is made in a document in the Bishop's palace in Eichstätt. These paintings are arranged in two rows, the upper of which is in a considerably damaged condition. The lower row is easily deciphered, and represents fifteen scenes from the life of Christ, which may be described as follows:—

1. The Birth.
2. The Adoration of the three Kings.
3. The Presentaion.
4. The Last Supper.
5. Christ on the Mount of Olives and His Betrayal.
6. Christ before Pilate.
7. The Mockery.
8. The Bearing of the Cross.
9. The Crucifixion.
10. The Deposition.
11. The Burial of Christ.
12. The Resurrection.
13. Christ in Hades and His Ascension.
14. The Coronation of the Virgin.
15. The Discovery of the Cross (?).

The upper row of paintings can be decided with difficulty on account of their damaged condition, but apparently represents scenes from the life of the Virgin. The period when these paintings were made can be determined from their resemblance to the Munich Bible of the Poor (1360 A. D.) and to the sculptures of the portal of the Lorenzkirche and to the glass paintings of Königsfeld. The paintings at Ingolstadt, however, are finer than the miniatures in the above-mentioned Bible.—DR. OSCAR FREIAER V. HÜTTENBACH in *Repert. f. Kunstwissen.*, 1894.

KARLSRUHE.—A PAINTING BY GRÚNEWALD.—The altarpiece of the parish church at Tauberbischofsheim, a master work of Matthäus Grünewald, has, after many wanderings, found a settled place in the picture gallery at Karlsruhe. Some years ago it was in the hands of a private collector, who, upon being told of its value by the Director of the

picture gallery at Kassel, allowed it to be exhibited as a loan in that gallery. It was afterwards sold to its original possessors, the parish of Tauberbischofsheim, and restored to its old place in the church. The value of the work led to an arrangement with the Archbishop of Freiburg and the parochial *Kirchgemeinde* for its permanent transference to the picture gallery at Karlsruhe, where it will be accessible to all students of art. A short time since the ecclesiastical authorities of the Cathedral of Worms consented, on the like grounds, to the transference of an interesting altarpiece from the cathedral of the Paulus Museum in that city.—*Athenæum*, Aug. 4.

KEYSTONE OF A CISTERCIAN VAULT.—The Museum at Karlsruhe has acquired a remarkable sculptured stone from the Marienkirche, formerly the Cistercian Abbey Schönau near Heidelberg. This was the keystone of a vault. Of this formerly magnificent Abbey, there are now but few remains. The dimensions of what appears to have been the refectory, show that this Abbey was built upon no smaller scale than that at Maulbronn. A careful examination of this key-stone shows that the vaulting corresponds exactly with that of the Cistercian Abbey Marienstatt near Hachenburg in Nassau. As Marienstatt was founded in the year 1817, so we may assign to the Abbey at Schönau a similar date.—*Repert. f. Kunstwissen.*, 1894.

KOBLENZ.—ROMAN FINDS.—At the dredging of the Moselle at Koblenz a very considerable number of Roman copper coins, with the effigies of several emperors, chiefly dating from the fourth century, have recently been unearthed, in addition to some other interesting objects of antiquity. It is to be regretted that a number of the finds were carried off by private persons before the authorities had the particular place enclosed and watched.—*Athenæum*, Aug. 4.

KÖLN.—ADDITION TO THE MUSEUM.—The most interesting painting of the Boudot collection was purchased at a sale for the Museum of Köln. It has been attributed to an extremely rare and important French painter of the close of the XIV century, Melchior Broederlem, whose altarpiece for Champmol now at Dijon shows him to be the worthy predecessor of Van Eyck. M. Pol Leprieur in a letter to the *Chronique*, (1895, Nos. 1 and 2) describes this painting with great care and denies its attribution to this artist. While granting that it may be by a French hand, he concludes that it is under the influence of the school of Köln. So much so that it would be possible to regard it as a production of this school. It is a portable triptych. In the center is seated God the Father, of youthful type and holding the crucifix over which flies a dove. On the doors are the four evangelists, two on each side.

MAINZ.—No town on the Rhine seems to be so rich as Mainz in its continuous yield of Roman antiquities. During excavations near the former fish-pond a small Roman altar of very fine limestone has been unearthed. The inscription is partly legible, and states that Q Atilius has paid his vow to the nymph, probably of the pond later known as the Münsterweiher. The altar belongs to the first century after Christ. A second votive altar, together with fragments of Roman gravestones, was found a few days ago near St. Peter's Church. The altar is dedicated by Lucius Majorius Cogitatus to the "Aufanian goddesses." These Deæ Aufaniæ belong to the Gallic-German divinities, and were venerated as benevolent unseen mothers. One of the gravestones found on the same spot states that ..... Gajulus from Virunum (Zollfeld, near Klagenfurth in Carinthia), a soldier of the 22nd Legion, thirty-one years in service, fifty-five years old, is buried here.—*Athen.*, June 8.

MEMMINGEN.—THE FRAUENKIRCHE IN MEMMINGEN.—Since the year 1891 a number of beautiful frescoes have been discovered which will be published by Herr Stadpfarrer Brann. The entire church seems to have been painted by a single artist. The decoration refers to the life of the Virgin and corresponds in style to the work of the middle of the fifteenth century. In fact, an inscription in the choir gives the date 1459. The church as a whole, belongs to one of the most remarkable and interesting buildings in southern Germany.—*Repert. f. Kunstwissen.*, 1894.

MUNICH.—IMPORTANT DISCOVERY OF VASES.—The collection of vases in the old Pinakothek in Munich is being enriched by a large mumber of fragments of Greek vases which have hitherto been neglected and almost forgotten in the cellar of the Glyptothek. These represent all varieties of Greek keramics, especially rare products of Ionian workmanship, and are being arranged by Paul Arndt and his assistants. Three of them are now published by Friedrich Hauser in *Jahrb. d. k. d. Arch. Inst.*, 1895, p. 151 (taf. 4). One of these presents the greater portion of a bowl, unsigned, but which from its style may be attributed to Andokides, whom Hauser now regards with Furtwaengler as the founder of the red-figured technique. The second bowl resembles that of Athenodotos published by Hartwig, *Meisterschalen, Taf* 14. Upon the outside was represented apparently a combat of an Amazon overcoming a Greek, and Herakles in contest with the Hydra. The third bowl has lost the principal figures of the exterior, although the central medallion is practically complete. From its style it may be attributed to Brygos.

NEUSS.—ROMAN REMAINS.—The excavations and researches which are now being made at Neuss by the authorities of the Rhenish Provincial Museum appear to be successful beyond expectation. On the site of

the Roman Novæsium the foundations of a series of Roman military works have been laid bare, with the traces of the ancient baths. In one large building a quantity of coins and other articles of the age of the first Cæsars have been found. A special compartment in the museum of the Rhine Province at Bonn is to be arranged for the exhibition of the portable objects that have turned up.—*Athen.*, Aug. 10.

REICHENHALL.—The National Museum of Munich has recently received a rich collection of antiquities found near Reichenhall in Roman tombs of the I and II centuries, A. D. Three hundred and five of these tombs have been opened and their contents are extremely interesting for the history of the customs of the Romans in Bavaria.—*Chronique*, 1895, No. 4.

RUPPERTSBERG IN DER PFALZ.—The results of the earlier excavations taken in connection with those of 1894, may be stated as follows: 1. On the Hohburg a fortress of regular form of the time of Trajan connected Alta ripa and the neighboring Heidenburg. 2. This was destroyed at the end of the IV century. 3. Near this spot in the La Ténè period there existed a Gallo-German settlement. 4. In the V century the Romanesque population retreated to the Heidenlöcher of the neighboring Martenberg. 5. The burial place for the population of the fortress and of the town lay to the north of the fortress. 6. From the fact that a section of the Martensii was stationed at Alta ripa has been derived the names Martenberg, Martenweg, and the frequently used name Martins, the modern Mertz.—*Berl. Phil. Woch.*, October 26 1895.

TRIER.—At Trier, on the same spot where, ten years ago, was discovered the famous mosaic of the Muses, another mosaic pavement has been found with numerous figures and inscriptions. The center is occupied by a Medusa, and at each of the four corners is represented a *quadriga* with victorious charioteer. The charioteers are gorgeously attired, are crowned, and bear palms in their hands. Each has his name inscribed below, showing that the scene is not ideal, but of real life. Their names are Fortunatus, Superstes, Philinus, and Euprepes. In the same city, while repairing the cathedral, in one of the towers of the west front, were found two Roman inscriptions, one of which is complete, and runs thus: "Modestiniana(e) Tasgillus Trever f(aciendum) c(uravit)."—*Athen.*, Oct. 12.

ULM.—The spire of the Cathedral at Ulm has been finished after many years' delay; it is said to be the loftiest structure of the kind in Europe.—*Athenæum*, Aug. 25.

ZELL BY OBERSTAUFEN.—(BAYRISCHES ALLGÄU.)—In the little church at Zell, forty minutes from the well-known summer resort of Oberstaufen, there were discovered in the summer of 1893, a series of valuable wall

paintings. The chapel, formerly the parish church of Zell, was united in 1375 with the Propstei of Oberstaufen. In the beginning of the XV century, it was raised and provided with the nave which exists at the present date. In the early half of the XV century, the walls were decorated with paintings. The walls of the choir were entirely so decorated, which paintings may be divided into three groups. The north wall of the choir shows the life of the Virgin, sixteen paintings and three rows. The south wall of the choir shows likewise three rows of paintings with the subjects taken from the lives of the apostles. The triumphal arch contained a painting representing the last judgment. The nave contains but few remains of paintings and the ceiling was painted later in the rococo style. A more accurate account of these paintings will be given by Prof. Dr. Endres-Regensburg in the *Allgäuer Geschichtsfreund*.—Dr. Oscar Freiherr Lochner v. Hüttenbach in *Repert. f. Kunstwissen.*, 1894.

SWITZERLAND.

BASEL.—The Münsterbauverein of Basel is preparing a volume on the architectural history of the cathedral, with plans and illustrations, which is to be published during the coming summer. It will consist of five sections: 1. The history of the cathedral in the Middle Ages, by K. Stehlin; 2. The condition from the beginning of the sixteenth century to the middle of the nineteenth, by R. Wackernagel; 3. The story of the "restoration" of 1850, by K. Stehlin; 4. The laying out of the minster yard and restoration of the cloisters in 1860–1873, by K. Stehlin; 5. The "restoration" of 1880 and onwards, by H. Reese.—*Athenæum*, April 13.

BERNE.—A RENAISSANCE CHIMNEY-PIECE.—The *Seeländer Bote*, a Berne local paper, gives an account of a fine chimney-piece of the Reformation age lately found in an ancient kitchen at Nidau. It is ornamented with the armorial bearings of Nidau, Berne, Zurich, Strassburg, Mühlhausen, Basel, Constance, St. Gall, and Biel, that is to say, the Evangelical cantons and the cities allied with them in the middle of the XVI century. The style is that of the transition from the Gothic to the Renaissance, both styles being illustrated in different parts of the work. The house in which it was found, with its strong masonry, Gothic windows, pointed doors, and solid crypt-like cellar, was probably at one time the Rathhaus of Nidau. The relic has been secured by the Berne Historical Museum.—*Athenæum*, Sept. 1.

HEIMENHOLZ.—A ROMAN WATCH-TOWER.—The foundations of a Roman watch-tower, hitherto unknown, according to the *Schweizer Freie Presse*, have been discovered in the Heimenholz, a wood near Rheinfelden. It is the twenty-seventh in the series of similar buildings extending

from the Lake of Constance to Basel along the course of the Rhine.—*Athenæum*, Aug. 24.

INNSBRUCK.—In the *Archæologischer Anzeiger*, 1894, pp. 125–128, E. Reisch gives a report on the *Meeting of Anthropologists in Innsbruck and the Lipperheide Collection*. The meeting took place Aug. 24–28. The study of prehistoric monuments occupied a prominent place among the subjects discussed. The Lipperheide Collection of some 800 bronzes was on exhibition during the meeting. It embraces nearly all branches of Italo-Roman bronze work. Weapons and especially helmets are well represented.

MORILLON.—THE DUVAL COLLECTION.—In the *Archæologischer Angeizer* (1895, pp. 49–54) is a catalogue by F. v. Duhn of the *Duval Collection* at Morillon near Geneva. Fourteen works of sculpture are described (with seven illustrations). Eleven so-called campana reliefs are also mentioned.

ZUG.—We are glad to see that Prof. R. Rahn, of Zurich, has prevailed upon the municipal authorities in Zug to renounce their cruel scheme for the destruction of the lovely little church of St. Oswald, built in 1478. There was formerly, and perhaps still is, within this church a wooden statue of the king on horseback, with the arms of England, and the inscription, "Sanctus Oswaldus, Rex Angliæ, patronus hujus ecclesiæ." There is also a painting of St. Oswald in prayer before the battle, which formerly stood above the high altar, and is attributed to Carlo Maratti. It is now in one of the aisles.—*Athenæum*, July 21.

HUNGARY.

MOVABLE TYPE USED BY THE ROMANS.—The *Foia diecesana*, the official paper of the bishopric of Caransebes, in Southern Hungary, declares that an architect and archæologist, M. Adrian Diaconu, has discovered in the ruins of Bersovia traces of the use of movable types by the fourth legion Flavia Felix quartered there. We should fancy he is mistaken.—*Athenæum*, July 13.

HARPILI.—A GOTHIC SHIELD.—M. Reinach communicated to the French Academy of Inscriptions the facsimile of the center or umbo of a shield found at Harpili in Hungary. This object in silver gilt is worked repoussé and decorated with figurines of a peculiar style, betraying Graeco-Roman influence by the side of barbaric and especially Scandinavian influence. M. Reinach called attention to the analogy of this style to that of the famous silver caldron of Gundestrup. The umbo of Harpili dates from about 300 A. D. and must be attributed to the Goths, who had descended from the borders of the Baltic Sea to southern Russia and passed up the Danube. The caldron of Gundestrup may be two or three centuries later.—*Chronique*, 1895, No. 3.

ALLAN MARQUAND.